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EARLY GREEK
PHILOSOPHY
WESTERN GREEK
THINKERS

PART 1



Edited and Translated by

ANDRÉ LAKS

GLENN W. MOST

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VOLUME IV

WESTERN GREEK THINKERS

PART 1

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ANDRÉ LAKS AND GLENN W. MOST

IN COLLABORATION WITH
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**PYTHAGORAS AND THE
PYTHAGOREAN SCHOOL**

GENERAL INTRODUCTION TO CHAPTERS 10–18

The presentation of the transmitted information relating to Pythagoras and the Pythagorean school is rendered particularly difficult by three partially interdependent factors: the evanescent and quasi-mythical character of the personality and teaching of Pythagoras; the anonymity of a large part of the information transmitted; and the existence of a vast pseudepigraphic literature, which, though in most cases it can be recognized as such, also includes texts about which one might well wonder whether they ought not to be attributed to the older Pythagoreans, especially Philolaus and Archytas. To these three difficulties must be added the sheer abundance of the material to be considered, given that more texts survive regarding the Pythagorean school than all the rest of the early Greek philosophers put together: besides the Pseudo-Pythagorean texts, two biographies of Pythagoras, composed by the Neoplatonic philosophers Porphyry and Iamblichus, have been preserved in their entirety; to these must be added the existence of works influenced by a more or less diffuse and more or less identifiable form of Pythagoreanism, like Nicomachus of Gerasa's *Introduction to Arithmetic* and *Manual of Harmonics* or Theon of Smyrna's *On Mathematics Useful for the Understanding of*

Plato. The singular character of the transmission of the Pythagorean corpus derives from the character, itself singular, of the history of ancient Pythagoreanism, which is itself principally marked by two factors: first, the very nature of its identity, which varies from epoch to epoch but displays at its origin a set of features corresponding simultaneously to a political formation (*hetairia*, literally an association of “friends” or “companions”), a religious congregation, and an educational institution, implying structures, attitudes, and processes familiar from the sociology of groups, such as hierarchization, solidarity, apostasy, diversification, and mythicization of the founder; and second, the fact that the Pythagorean doctrine and perhaps, even more, its spirit were claimed by Plato for himself, in a manner so decisive that Pythagoreanism became an integral part of the—itsself very complex—history of Platonism and of Neoplatonism.

In order to try to take account of this exceptional configuration, we have felt obliged to modify the tripartition **P/D/R** that is used in most other chapters. Indeed, Diels himself, in his presentation of this material, was obliged to abandon his own division into A (testimonia) and B (fragments), and used a classification from A to E, which is indicated in our lemmata.

The chapter dedicated to Pythagoras (chap. 10) is divided into three subchapters: the first (“Pythagoras a”), designated **P**, collects, besides the biographical data, the earliest references to the person of Pythagoras (these are particularly important, given that his was a figure that rapidly became mythicized) and a series of texts in which he appears with the canonical features of a ‘divine man’; the second (“Pythagoras b”), designated **T**, focuses on the or-

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ganization and early history of the institution of Pythagoreanism, but, given that certain features of this organization cannot be separated from the person of Pythagoras himself, it also completes the preceding subchapter; in the third ("Pythagoras c"), designated **D**, we have put together, besides some teachings that may be attributed to Pythagoras himself—it being understood that any such attribution is uncertain and contestable—a selection of anonymous formulas and precepts that (in particular on the basis of Aristotle's testimony) can reasonably be assigned to the oldest form of Pythagoreanism—if not to Pythagoras himself, then at least to his 'congregation.'

The six chapters that follow are dedicated to the person (**P**), when this is appropriate, and to the doctrines attributed by name (**D**) to the principal Pythagoreans who can be situated between Pythagoras and Plato—in chronological order (uncertain in the case of the last two) Hip-pasus (chap. 11), Philolaus (chap. 12), Eurytus (chap. 13), Archytas (chap. 14), Hicetas (chap. 15), and Ecphantus (chap. 16). This list excludes, not without some degree of arbitrariness, certain authors who were reputed to be Pythagoreans or to have belonged to the Pythagorean movement, such as Menestor and Damon, whom considerations of space and significance have induced us to omit within the framework of this edition. But there are also a large number of doctrines that are attributed in a general manner to 'Pythagoreans' who are not further identified by name. In most of these cases, it is at the best imprudent, and at the worst impossible, to assign these doctrines to this or that individual Pythagorean; this is the reason why we have chosen—following Diels' example—to collect these texts in a specific chapter dedicated to Pythagorean

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doctrines not attributed by name (chap. 17). Nonetheless, a certain number of these unattributed doctrines clearly coincide with, or are very close to, those that are known to belong to Philolaus, so that this chapter includes a number of texts that complete the **D** section of the chapter specifically dedicated to him. Finally, we have collected in a single chapter (chap. 18) the elements relating to the reception of Pythagoras and of the Pythagorean ‘school’ in antiquity—including the reception of the authors who are the objects of chapters 11 to 16. This is a particularly complex reception, and one whose presentation, given the abovementioned abundance of the available documentation, cannot help but be incomparably more selective than most of the other chapters of the present edition. We only hope that our choice will be sufficiently representative to suggest, to those who wish them, paths for possible further research, starting out from the bibliographical references we provide. The particular problems connected with the transmission of the works of Philolaus and Archytas, which are due to the production of pseudepigraphic texts, are discussed in the specific introductions to these two chapters.

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10. PYTHAGORAS

[PYTH. a, PYTH. b, PYTH. c]

The ancient sources situate Pythagoras' maturity in 540 or 530 BC, and his name is explicitly mentioned twice by Heraclitus, at the end of the sixth century. Hence he can be considered a contemporary of Anaximenes. Born on Samos, not far from Miletus, he seems to have emigrated to southern Italy at the time of Polycrates' tyranny over the island. Whether or not the reason for this departure was political, the institution that he goes on to found at Croton is marked by features that are resolutely political. Doubtless this is, in a certain sense, a school of thought, but that aspect is combined with a group of 'companions' (the technical term is *hetairia*) of a conservative tendency, who attained considerable success, if it is true that for a certain time many south Italian cities were governed by Pythagoreans, until these oligarchic governments were themselves overthrown. Pythagoras himself was obliged to leave Croton for Metapontum as the result of a revolt (this is dated ca. 500), and other violent uprisings occurred around 450 and led to a dispersal of the community and to the exile of individuals as far away as continental Greece. An idea of the size of these communities, even if only an indirect one, is provided by the impressive catalog of the principal Pythagorean men (and women) that is

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transmitted by Iamblichus in his *Life of Pythagoras* (**PYTH. b T30**). It seems to be clear that the Pythagorean *hetairia* is intimately linked to the charisma and exceptional authority of its founder. A certain number of its characteristic features—silence, degrees of initiation, the practice of secrecy—place this institution in the proximity of religious sects. Its relation with the nature of the teachings imparted is difficult to establish. The doctrines that can be attributed to Pythagoras are few in number and heterogeneous in character; it seems certain that they included a role for number, under whose aegis a significant part of the later destiny of Pythagoreanism is played out; the idea of a survival after death seems equally certain, although the notion of metempsychosis, which constitutes the other pillar of the later destiny of Pythagoreanism, is not so well attested. The very numerous attested prescriptions of a ritual and moral character are difficult to date, but their core is certainly ancient, and they fit the idea of a community that, according to the available evidence, was quickly perceived as being connected with a distinctive way of life. The category of ‘divine man’ that one finds applied to Pythagoras derives from a later typology, but Herodotus’ reports, Heraclitus’ invectives, and a possible allusion in Empedocles show that Pythagoras was soon thought of as a person endowed with supernatural faculties. Master of the truth, director of conscience, magus, charlatan—these are notions that can help situate the largely ungraspable figure of that man who, of all the early Greek philosophers, without a doubt exerted the longest-lasting influence until the beginning of modern times, and who continues to exercise a fascination that none of his peers can vaunt.

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See also the titles listed in the General Introduction to Chapters 10–18.

OUTLINE OF THE CHAPTER

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Birthplace (P1–P2)

Chronology (P3–P5)

Longevity (P6–P7)

Alleged Parentage and Family (P8–P11)

Alleged Greek Teachers (P12–P17)

Alleged Travels in the Orient and Initiation into Barbarian Wisdom (P18–P22)

Departure for Southern Italy (P23–P26)

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Impact at Croton and in the Rest of Italy (P24–P26)

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 - In Xenophanes (P32)*
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 - Between God and Man (P34–P36)*
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 - His Encounter with Hesiod and Homer (P40)*
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 - The Harmony of the Spheres (cf. P33)*
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- A Caricature by the Skeptic Timon of Phlius (P43)*
- Four Versions of Pythagoras' Death (P44)*
- Civic Honors and Religious Aura (P45–P46)*
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- The School: Characteristics and History (T7–T28)*
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Iccus of Tarentum (T34)

Ameinas (T35)

Telauges

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Pythagoras c

Doctrines Attributed by Name; Sayings and Precepts

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Immortality, Transmigration, Eschatology (D4–D5)

Numbers: Justice Is a Square (D6)

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- Geometry: The Pythagorean Theorem (D7)*
- Music (D8)*
- The First Inventor (prôtos heuretês) (D9–D14)*
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 - The Term ‘Cosmos’ (D13)*
 - The Identity of the Morning Star and the Evening Star (D14)*
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PYTHAGORAS a
BIOGRAPHICAL ELEMENTS AND LEGEND

P

Biographical Elements (P1–P24)
Birthplace (P1–P2)

P1 (> 14.8) Diog. Laert. 8.1

[. . .] Πυθαγόρας Μνησάρχου δακτυλιογλύφον, ὥς φησιν Ἑρμιππος [Frag. 19 Wehrli], Σάμιος ἢ, ὡς Ἀριστόξενος, Τυρρηνός [Frag. 11a Wehrli], ἀπὸ μιᾶς τῶν νήσων ἃς ἔσχον Ἀθηναῖοι Τυρρηνοὺς ἐκβαλόντες.

P2 (≠ DK) Porph. VP 5

Λύκος¹ δ' ἐν τῇ τετάρτῃ τῶν ἱστοριῶν καὶ περὶ τῆς πατρίδος ὡς διαφωνούντων τινῶν μνημονεύει λέγων.
“[. . .] λέγουσι γὰρ αὐτὸν οἱ μὲν εἶναι Σάμιον, οἱ δὲ Φλιάσιον, οἱ δὲ Μεταποντῖνον.”

¹ λεῦκος mss., corr. Holstenius

PYTHAGORAS a
BIOGRAPHICAL ELEMENTS AND LEGEND

P

Biographical Elements (P1–P24)
Birthplace (P1–P2)

P1 (> 14.8) Diogenes Laertius¹

[. . .] Pythagoras, son of the gem-cutter Mnesarchus; he was from Samos, as Hermippus says, or, as Aristoxenus says, a Tyrrhenian, from one of the islands [i.e. Lemnos and neighboring islands] occupied by the Athenians after they had expelled the Tyrrhenians from them [scil. in 510 BC].

¹ For more details, see Porphyry, *VP* 1–2; his source is Neanthes, who is probably Diogenes Laertius' as well.

P2 (≠ DK) Porphyry, *Life of Pythagoras*

Lycus in Book 4 of his *Histories* reports that certain people disagree also about his fatherland. He writes, “[. . .] for some say that he came from Samos, others from Phlius, others from Metapontum.”

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Chronology (P3–P5)

P3 (< 14.10) Diog. Laert. 8.45

ἤκμαζε δὲ καὶ¹ κατὰ τὴν ἐξηκοστὴν² Ὀλυμπιάδα.

¹ καὶ del. Cobet ² τὴν <δευτέραν καὶ> ἐξακοστὴν
Jacoby

P4 (≠ DK) Eus. *Chron.* (Hier.), p. 104b12 Helm

[ad Ol. 62.3] Pythagoras physicus philosophus clarus habetur.

P5 (<14.8) Ps.-Iambl. *Theol.*, p. 52.18–53.5 (< Aristox. Frag. 12 Wehrli)

[. . . = **P39**] φ' γὰρ καὶ ιδ' ἔτη ἔγγιστα ἀπὸ τῶν Τρωικῶν ἱστορεῖται μέχρι Ξενοφάνους τοῦ φυσικοῦ καὶ τῶν Ἀνακρέοντός τε καὶ Πολυκράτους χρόνων καὶ τῆς ὑπὸ Ἀρπάγου τοῦ Μήδου Ἰώνων πολιορκίας καὶ ἀναστάσεως, ἣν Φωκεῖς φυγόντες Μασσαλίαν ἔκκησαν· πᾶσι γὰρ τούτοις ὁμόχρονος ὁ Πυθαγόρας· [. . . = **P19**] ὃ τε Καμβύσης τῇ Πολυκράτους μάλιστα τυραννίδι συνεχρόνει, ἣν φεύγων εἰς Αἴγυπτον μετῆλθε Πυθαγόρας [. . . = **P6**].

PYTHAGORAS a

Chronology (P3–P5)

P3 (< 14.10) Diogenes Laertius

He reached his full maturity in the 60th Olympiad [540–536].

P4 (≠ DK) Eusebius, *Chronicle* (Jerome)

[Third year of the 62nd Olympiad = 530]: Pythagoras the natural philosopher is considered famous.

P5 (< 14.8) Ps.-Iamblichus, *Theology of Arithmetic*

[. . .] For nearly 514 years are recorded from the Trojan War until Xenophanes the natural philosopher, the times of Anacreon and Polycrates, the siege and removal of the Ionians by Harpagus the Mede; the Phocians who fled this founded Marseille. For Pythagoras was contemporary with all these; [. . .] and Cambyses was exactly contemporary with the tyranny of Polycrates, which Pythagoras was fleeing when he went to Egypt [. . .] [cf. **P19**].

Longevity (P6–P7)

P6 (< 14.8) Ps.-Iambl. *Theol.*, p. 53.5–7 (< Aristox. Frag. 12 Wehrli)

[. . . = **P5**] δις οὖν ἀφαιρεθείσης τῆς περιόδου, τουτέστι δις τῶν σις' ἐτῶν, λοιπὰ γίνεται τὸ τοῦ βίου αὐτοῦ πβ'.

P7 (≠ DK) Diog. Laert. 8.44

ὁ δ' οὖν Πυθαγόρας, ὥς μὲν Ἡρακλείδης φησὶν ὁ τοῦ Σαραπίωνος [Heraclides Lembos Frag. 6 Müller, Sotion Frag. 23 Wehrli], ὀγδοηκοντούτης ἐτελεύτα, κατὰ τὴν ἰδίαν ὑπογραφὴν τῶν ἡλικιῶν ὥς δὲ οἱ πλείους, ἔτη βιοὺς ἐνενήκοντα.¹

¹ ἐνενήκοντα <ἐννέα> Casaubon

Alleged Parentage and Family (P8–P11)

P8 (≠ DK) Porph. VP 2

Ἀπολλώνιος δ' ἐν τοῖς περὶ Πυθαγόρου καὶ μητέρα ἀναγράφει Πυθαΐδα, ἀπόγονον Ἀγκαίου¹ τοῦ οἰκιστοῦ τῆς Σάμου. τινὰς δὲ Ἀπόλλωνος αὐτὸν ἱστορεῖν καὶ Πυθαΐδος τῷ γόνῳ, λόγῳ δὲ Μνησάρχου φησὶν Ἀπολλώνιος.

¹ ἀγγαίου mss., corr. edd.

PYTHAGORAS a

Longevity (P6–P7)

P6 (< 14.8) Aristoxenus in Ps.-Iamblichus, *Theology of Arithmetic*

[. . .] So when this period (that is, twice 216 years) is subtracted twice, the remainder is the length of his life, eighty-two years.

P7 (\neq DK) Diogenes Laertius

Pythagoras, as Heraclides the son of Serapion [i.e. Heraclides Lembus] says, died at the age of eighty, in conformity with his own schema of the periods of a lifetime; but most people say that it was at the age of ninety.

Alleged Parentage and Family (P8–P11)

P8 (\neq DK) Porphyry, *Life of Pythagoras*

Apollonius, in his book on Pythagoras, also records as his mother Pythaïs, a descendant of Ancaeus, the founder of Samos. Apollonius says that some people stated that he was the son of Apollo and Pythaïs according to birth, and of Mnesarchus according to report.

P9 (\neq DK) Diog. Laert. 8.2

ἔσχε δὲ καὶ¹ ἀδελφούς, πρεσβύτερον μὲν Εὐνομον, μέσον δὲ Τυρρηγνόν· καὶ δοῦλον Ζάμολξιν, ᾧ Γέται θύουσι, Κρόνον νομίζοντες, ὥς φησιν Ἡρόδοτος.²

¹ καὶ BP¹: om. FP⁴ ² ὥς φησιν ἡρόδοτος ante Κρόνον
transp. Stephanus, om. F

P10 (> 17.1 , < 31 B155) Diog. Laert. 8.42–43

[42] ἦν δὲ τῷ Πυθαγόρᾳ καὶ γυνή, Θεανὸν ὄνομα, Βροντίνου τοῦ Κροτωνιάτου θυγάτηρ· οἱ δέ, γυναῖκα μὲν εἶναι Βροντίνου, μαθήτριάς δὲ Πυθαγόρου. ἦν αὐτῷ καὶ θυγάτηρ Δαμώ, ὥς φησι Λύσις ἐν ἐπιστολῇ τῇ πρὸς Ἰππασον¹ [. . .]. [43] ἦν καὶ Τηλαύγης υἱὸς αὐτοῖς, ὃς καὶ διεδέξατο τὸν πατέρα καὶ κατὰ τινας Ἐμπεδοκλέους καθηγήσατο.

¹ ἰππασον BP: ἰππαρχον F² (cf. Iambl. VP 75)

P11 (< 14.6 , < 14.13) Porph. VP 3, 4

[3] Δοῦρις δ' ὁ Σάμιος ἐν δευτέρῳ τῶν Ὀρων παῖδά τ' αὐτοῦ ἀναγράφει Ἀρίμνηστον [. . .]. [4] ἄλλοι δ' ἐκ Θεανοῦς τῆς Πυθώνακτος τὸ γένος Κρήσσης υἱὸν Τηλαύγην Πυθαγόρου ἀναγράφουσι καὶ θυγατέρα Μυῖαν, οἱ δὲ καὶ Ἀριγνώτην [. . .].

P9 (≠ DK) Diogenes Laertius

He also had brothers, an older one, Eunomus, and one in the middle, Tyrrhenus; and a slave, Zamolxis, to whom the Getans sacrifice, thinking he is Cronus, as Herodotus says (*Histories* 4.95).

P10 (> 17.1, < 31 B155) Diogenes Laertius

[42] Pythagoras also had a wife named Theano, daughter of Brontinus of Croton; other people say that she was the wife of Brontinus and a disciple of Pythagoras. He also had a daughter, Damo, as Lysis says in his letter to Hippasus [cf. **PYTHS. R54**].¹ [43] They also had a son, Telauges, who was his father's successor and according to some was the teacher of Empedocles [cf. **EMP. P11**].

¹ By confusion, for Hipparchus.

P11 (< 14.6, < 14.13) Porphyry, *Life of Pythagoras*

[3] Duris of Samos, in the second book of his [scil. *Samian Annals*], records as his son Arimnestus [. . .]. [4] Others record Telauges as a son of Pythagoras and of Theano, who was a daughter of Pythonax and of Cretan origin, and Myia as a daughter, and others also Arignotê [. . .].

Alleged Greek Teachers (P12–P17)

P12 (≠ DK) Diog. Laert. 8.2

οὗτος ἤκουσε μέν [. . .] Φερεκύδου τοῦ Συρίου· μετὰ δὲ τὴν ἐκείνου τελευτὴν ἦκεν εἰς Σάμον καὶ ἤκουσεν Ἑρμοδάμαντος τοῦ ἀπογόνου Κρεωφύλου, ἥδη πρεσβυτέρου.

P13 (53b Schibli) Tzetz. *Chil.* 11.74–75

[. . .] οὗτος ὁ Πυθαγόρας
σὺν τῷ Θαλῇ κατήκουσε τοῦ Σύρου Φερεκύδους
[. . .].

P14 (≠ DK) Porph. *VP* 2

διακοῦσαι δ' οὐ μόνον Φερεκύδου¹ καὶ Ἑρμοδάμαντος ἀλλὰ καὶ Ἀναξιμάνδρου φησὶν οὗτος.

¹ φερεκύδους ἀλλὰ mss., corr. edd.

P15 (≠ DK) Iambl. *VP* 11–12

[. . .] μετὰ τοῦ Ἑρμοδάμαντος [. . .] πρὸς τὸν Φερεκύδην διεπόρθμευσε καὶ πρὸς Ἀναξιμάνδρον τὸν φυσικὸν καὶ πρὸς Θαλῆν εἰς Μίλητον [. . .]. καὶ δὴ καὶ ὁ Θαλῆς ἄσμενος αὐτὸν προσήκατο, [. . .], μεταδούς τε ὅσων¹ ἠδύνατο μαθημάτων [. . .].

¹ ὅσον ms., corr. Küster

Alleged Greek Teachers (P12–P17)

P12 (≠ DK) Diogenes Laertius

He studied [. . .] with Pherecydes of Syros [cf. **PHER. P9**]; after the latter's death he went to Samos and studied with Hermodamas, a descendant of Creophylus, who was already quite old.

P13 (≠ DK) Tzetzes, *Chiliads*

[. . .] This Pythagoras,
together with Thales, studied with Pherecydes of
Syria.¹

¹ Tzetzes seems to have confused the Greek island of Syros, the home of Pherecydes, with the Near Eastern country Syria.

P14 (≠ DK) Porphyry, *Life of Pythagoras*

He [i.e. Apollonius] says that he studied not only with Pherecydes and Hermodamas, but also with Anaximander.

P15 (≠ DK) Iamblichus, *Life of Pythagoras*

[. . .] accompanied by Hermodamas [. . .], he crossed over [scil. from Samos] to Miletus in order to visit Pherecydes, Anaximander the natural philosopher, and Thales. [. . .] And Thales was pleased to welcome him and [. . .] imparted to him all the knowledge he could [. . .].

P16 (14.3) Diog. Laert. 8.8.

φησὶ δὲ καὶ Ἀριστόξενος [Frag. 15 Wehrli] τὰ πλείστα τῶν ἠθικῶν δογμάτων λαβεῖν τὸν Πυθαγόραν παρὰ Θεμιστοκλείας τῆς ἐν Δελφοῖς.¹

¹ ἐν Δελφοῖς Aldobrandini: ἀδελφῆς mss.

P17

a (≠ DK) Iambl. VP 146

οὐκέτι δὴ οὖν ἀμφίβολον γέγονε τὸ τὰς ἀφορμὰς παρὰ Ὀρφέως λαβόντα Πυθαγόραν συντάξαι τὸν περὶ θεῶν λόγον [. . .].

b (≠ DK) Procl. *Theol.* 1.5, p. 25

[. . .] πρώτου μὲν Πυθαγόρου παρὰ Ἀγλαοφήμεον τὰ περὶ θεῶν ὄργια διδαχθέντος [. . .].

*Alleged Travels in the Orient and Initiation into
Barbarian Wisdom (P18–P22)*

P18 (< 14.4) Isocr. *Bus.* 28

[. . .] ὃς ἀφικόμενος εἰς Αἴγυπτον καὶ μαθητῆς ἐκείνων γενόμενος τὴν τ' ἄλλην φιλοσοφίαν πρῶτος εἰς τοὺς Ἑλληνας ἐκόμισεν, καὶ τὰ περὶ τὰς θυσίας καὶ τὰς ἀγιστείας τὰς ἐν τοῖς ἱεροῖς ἐπιφανέστερον τῶν ἄλλων ἐσπούδασεν [. . .].

P16 (14.3) Diogenes Laertius

Aristoxenus also says that Pythagoras derived most of his ethical doctrines from Themistocleia of Delphi.

P17

a (\neq DK) Iamblichus, *Life of Pythagoras*

So it can no longer be doubted that it was by taking his starting point from Orpheus that Pythagoras composed his discourse about the gods [. . .].

b (\neq DK) Proclus, *Platonic Theology*

[. . .] Pythagoras being the first to have been taught by Aglaophamus¹ about the divine rites [. . .].

¹ The man who supposedly initiated Pythagoras into the Orphic mysteries.

*Alleged Travels in the Orient and Initiation into
Barbarian Wisdom (P18–P22)*

P18 (< 14.4) Isocrates, *Busiris*

[. . .] after he went to Egypt and became their [i.e. the Egyptians'] student, he was the first to bring to the Greeks philosophy in general and in particular he practiced more conspicuously than the others the sacrifices and rites in the temples [. . .].

P19 (<14.8) Ps.-Iambl. *Theol.*, p. 53.1–3 (< Aristox. Frag. 12 Wehrli)

[. . . = **P5**] ὑπὸ Καμβύσου γοῦν ἱστορεῖται Αἴγυπτον ἐλόντος συννηχμαλωτίσθαι ἐκεῖ συνδιατρίβων τοῖς ἱερεῦσι καὶ εἰς Βαβυλῶνα μετελθὼν τὰς βαρβαρικὰς τελετὰς μνηθῆναι [. . .].

P20 Porph. *VP* 6 et 11

a (14.9)

[6] ἔτι καὶ περὶ τῆς διδασκαλίας αὐτοῦ οἱ πλείους τὰ μὲν τῶν μαθηματικῶν καλουμένων ἐπιστημῶν παρ' Αἰγυπτίων τε καὶ Χαλδαίων καὶ Φοινίκων φασὶν ἐκμαθεῖν· γεωμετρίας μὲν γὰρ ἐκ παλαιῶν χρόνων ἐπιμεληθῆναι Αἰγυπτίους, τὰ δὲ περὶ ἀριθμούς τε καὶ λογισμοὺς Φοίνικας, Χαλδαίους δὲ τὰ περὶ τὸν οὐρανὸν θεωρήματα· περὶ <δὲ>¹ τὰς τῶν θεῶν ἀγιστείας καὶ τὰ λοιπὰ τῶν περὶ τὸν βίον ἐπιτηδευμάτων παρὰ τῶν Μάγων φασὶ² διακοῦσαί τε καὶ λαβεῖν.

¹ <δὲ> edd. plerique

² φασὶ V: φησὶ B

b (≠ DK)

[11] [. . .] ἀφίκετο δὲ καὶ πρὸς Αἰγυπτίους, φησὶν, ὁ Πυθαγόρας καὶ πρὸς Ἄραβας καὶ Χαλδαίους καὶ Ἑβραίους, παρ' ὧν καὶ τὴν περὶ ὀνείρων γνῶσιν ἠκριβώσατο.

P19 (<14.8) Aristoxenus in Ps.-Iamblichus, *Theology of Arithmetic*

[. . .] it is reported that when Cambyses took Egypt [= 525 BC], he [i.e. Pythagoras] was taken prisoner by him too while he was spending time with the priests [cf. **P5**], and that he then went on to Babylon and was initiated into the barbarian mysteries [. . .].

P20 Porphyry, *Life of Pythagoras*

a (14.9)

[6] Regarding his education, most people say that he learned what belongs to what are called the mathematical sciences from the Egyptians, the Chaldaeans, and the Phoenicians. For the Egyptians have cultivated geometry since ancient times, the Phoenicians arithmetic and calculation, and the Chaldaeans the observation of the heavens. As for the rituals of the gods and the other practices regarding life, they say that he studied and took them over from the Magi.

b (≠ DK)

[11] Pythagoras traveled to the Egyptians, he [i.e. Antonius Diogenes] says, the Arabs, the Chaldaeans, and the Hebrews, among whom he perfected his knowledge of dreams.

P21 (14.11) (Ps.-?) Hippol. *Ref.* 1.2.12

Διόδωρος δὲ ὁ Ἑρετριεὺς [*FGrHist* 1103 F1] καὶ Ἀριστόξενος ὁ μουσικός [*Frag.* 13 Wehrli] φασὶ πρὸς Ζαράταν τὸν Χαλδαῖον ἐληλυθέναι Πυθαγόραν.

P22 (≠ DK) Iambl. *VP* 151

[. . .] ἃ μὲν μαθόντα παρὰ τῶν Ὀρφικῶν, ἃ δὲ παρὰ τῶν Αἰγυπτίων ἱερέων, ἃ δὲ παρὰ Χαλδαίων καὶ μάγων, ἃ δὲ παρὰ τῆς τελετῆς τῆς ἐν Ἐλευσίνι γινομένης, ἐν Ἴμβρῳ τε καὶ Σαμοθράκῃ καὶ Λήμνῳ,¹ καὶ εἴ² τι παρὰ Τουσκανοῖς,³ καὶ περὶ τοὺς Κελτοὺς δὲ καὶ τὴν Ἰβηρίαν.

¹ Λήμνῳ Chapoutier: δῆλῳ ms.

² εἴ Scaliger: αἰεί ms.

³ Τουσκανοῖς Rohde: Τυρρηνοῖς Nauck: τοῖς κοινοῖς mss.

Departure for Southern Italy (P23–P26)

The Reason for His Departure (P23)

P23 (14.8) Porph. *VP* 9

γεγονότα δ' ἐτῶν τεσσαράκοντα,¹ φησὶν ὁ Ἀριστόξενος [*Frag.* 16 Wehrli], καὶ ὁρῶντα τὴν τοῦ Πολυκράτους τυραννίδα συντονωτέραν οὖσαν ὥστε καλῶς ἔχειν ἐλευθέρῳ ἀνδρὶ τὴν ἐπιστατείαν² τε καὶ δεσποτείαν ὑπομένειν,³ οὕτως δὲ τὴν εἰς Ἰταλίαν ἀπαρσιν ποιήσασθαι.

P21 (14.11) (Ps.-?) Hippolytus, *Refutation of All Heresies*
Diodorus of Eretria and Aristoxenus the writer on music say that Pythagoras went to see Zaratas [i.e. Zoroaster] the Chaldaean.

P22 (≠ DK) Iamblichus, *Life of Pythagoras*

[. . .] he had learned some things from the Orphics, others from the Egyptian priests, others from Chaldaeans and Magi, still others from the initiations performed at Eleusis, Imbros, Samothrace, and Lemnos, and everything else there might be from the Etruscans, and again among the Celts and in Iberia.

Departure for Southern Italy (P23–P26)
The Reason for His Departure (P23)

P23 (14.8) Porphyry, *Life of Pythagoras*

Aristoxenus says that the reason he departed for Italy was that when he was forty years old he saw that Polycrates' tyranny was too harsh for it to be proper for a free man to endure that dominion and despotism.

¹ τεσσαράκοντα] μ' BV ² ἐπιστατίαν mss., corr. Nauck
³ μὴ ante ὑπομένειν hab. mss., secl. Cobet

*Impact at Croton and in the
Rest of Italy (P24–P26)*

P24 (< 14.4) Isocr. Bus. 29

[. . .] τοσοῦτον γὰρ εὐδοξία τοὺς ἄλλους ὑπερέβαλεν ὥστε καὶ τοὺς νεωτέρους ἅπαντας ἐπιθυμεῖν αὐτοῦ μαθητὰς εἶναι, καὶ τοὺς πρεσβυτέρους ἥδιον ὁρᾶν τοὺς παῖδας τοὺς αὐτῶν ἐκείνῳ συγγιγνομένους ἢ τῶν οἰκείων ἐπιμελουμένων.

P25 (< 14.8a) Porph. VP 18–19

[18] ἐπεὶ δὲ τῆς Ἰταλίας ἐπέβη καὶ ἐν Κρότωνι ἐγένετο, φησὶν ὁ Δικαίαρχος [Frag. 33 Wehrli], ὡς ἀνδρὸς ἀφικομένου πολυπλάνου τε καὶ περιττοῦ καὶ κατὰ τὴν ἰδίαν φύσιν ὑπὸ τῆς τύχης εὖ κεχορηγημένου [. . .] οὕτως διαθεῖναι τὴν Κροτωνιατῶν πόλιν ὥστ' ἐπεὶ τὸ τῶν γερόντων ἀρχεῖον ἐψυχαγώγησεν πολλὰ καὶ καλὰ διαλεχθεῖς, τοῖς νέοις πάλιν ἡβητικὰς ἐποιήσατο παραινέσεις ὑπὸ τῶν ἀρχόντων κελευσθείς· μετὰ δὲ ταῦτα τοῖς παισὶν ἐκ τῶν διδασκαλείων ἀθρόοις συνελθούσιν· εἶτα ταῖς γυναῖξί,¹ καὶ γυναικῶν σύλλογος αὐτῷ κατεσκευάσθη. [19] γενομένων δὲ τούτων μεγάλη περὶ αὐτοῦ² ηὐξήθη δόξα, καὶ πολλοὺς μὲν ἔλαβεν ἐξ αὐτῆς τῆς πόλεως ὁμιλητάς, οὐ μόνον ἀνδρας ἀλλὰ καὶ γυναῖκας, ὧν μίας γε Θεανοῦς καὶ διεβοήθη τοῦνομα, πολλοὺς δ' ἀπὸ τῆς σύνεγγυς βαρβάρου χώρας βασιλεῖς τε καὶ δυνάστας.

Impact at Croton and in the Rest of Italy
(P24–P26)

P24 (< 14.4) Isocrates, *Busiris*

[. . .] He surpassed the others in fame so much that all the younger men wanted to be his disciples and the older ones were more pleased to see their children associating with him than caring for their household affairs.

P25 (< 14.8a) Dicaearchus in Porphyry, *Life of Pythagoras*

[18] Dicaearchus says that when he landed in Italy and arrived at Croton, on his arrival, being a man who had traveled much, was extraordinary, and whose nature had been richly endowed by fortune [. . .], he had such an effect upon the city of the Crotonians that after he had won over the souls of the council of the elders by delivering long and fine speeches, he in turn bestowed upon the young men, at the request of the magistrates, advice adapted to their age, and after this upon the children who had gathered as a crowd on leaving their schools; and then upon the women, and he organized an assembly of women. [19] After these events, his reputation grew very great, and in this same city he acquired many companions, not only men, but also women (the name of one of these, Theano, became famous), and also kings and rulers of the neighboring barbarian country.

¹ γυναιξίν, <ἐπεὶ> Westermann

² αὐτὸν mss., corr. Wakefield

P26 (≠ DK) Diog. Laert. 8.14–15

οὕτω δὲ ἐθαυμάσθη, ὥστε ἔλεγον¹ τοὺς γνωρίμους²
 αὐτοῦ <παραγγέλλειν>³ παντοίας⁴ θεοῦ φωνάς [. . .].
 τοιγὰρ καὶ προσεκαρτέρουν αὐτῷ καὶ τῶν λόγων
 ἕνεκα προσήεσαν καὶ Λευκανοὶ καὶ Πευκέτιοι καὶ
 Μεσσάπιοί τε καὶ Ῥωμαῖοι. [. . .] τῶν τε ἑξακοσίων
 οὐκ ἐλάττους ἐπὶ τὴν νυκτερινὴν ἀκρόασιν ἀπήντων
 αὐτοῦ· καὶ εἴ⁵ τινες ἀξιωθείεν αὐτὸν θεάσασθαι, ἔγρα-
 φον πρὸς τοὺς οἰκείους ὡς μεγάλου τινὸς τετυχηκότες
 [. . .].

¹ ἔλεγον BPF: λέγειν Kühn ² post γνωρίμους <τὰ>
 Kühn, <τὰ λεγόμενα> Marcovich ³ <παραγγέλλειν>
 nos ⁴ παντοίας BP: παντοίους F: τὰς παραγγελίας conl.
 Delatte: μάντιας Cobet: παντελῶς Marcovich ⁵ εἴ PFΦ:
 οἱ B

*Earliest References to Pythagoras' Person and to
 Various Aspects of His Activity (P27–P33)
 References by Name (P27–P31)
 In Heraclitus (P27–P28)*

P27 [= HER. D20]

πολυμαθὴν νόον οὐ διδάσκει· Ἡσίοδον γὰρ ἂν ἐδί-
 दाξε καὶ Πυθαγόρην αὐτὶς τε Χενοφάνεά τε καὶ Ἑκα-
 ταῖον.

P26 (≠ DK) Diogenes Laertius

He was so greatly admired that they said of his disciples <that they transmitted> all kinds of words of a god [. . .]. And that is why the Lucanians and the Peucetians, the Messapians and the Romans remained attached to him and came to him to listen to his discourses [. . .]. Not fewer than six hundred people went to his evening lecture; and any who were considered worthy of seeing him wrote to their relatives as though something extraordinary had happened to them.

*Earliest References to Pythagoras' Person and to
Various Aspects of His Activity (P27–P33)
References by Name (P27–P31)
In Heraclitus (P27–P28)*

P27 [= **HER. D20**]

Much learning does not teach intelligence: for otherwise it would have taught it to Hesiod and Pythagoras, and again to Xenophanes and Hecataeus.

P28 [= HER. D26]

Πυθαγόρης Μνησάρχου ἱστορίην ἥσκησεν ἀνθρώπων μάλιστα πάντων, καὶ ἐκλεξάμενος ταύτας τὰς συγγραφὰς ἐποιήσατο ἑαυτοῦ σοφίην, πολυμαθίην, κακοτεχνίην.

In Ion of Chios (P29)

P29 (< 36 B4) Ion Chius in Diog. Laert. 1.120

Ἴων δ' ὁ Χίος φησιν περὶ αὐτοῦ·

[. . . cf. **PHER. R1**]

εἵπερ Πυθαγόρης ἐτύμως ὁ σοφὸς περὶ πάντων ἀνθρώπων γνώμας εἶδε καὶ ἐξέμαθεν.

In Herodotus (P30)

P30 (14.2) Hdt. 4.95–96

[95] ὥς δὲ ἐγὼ πυνθάνομαι τῶν τὸν Ἑλλήσποντον καὶ Πόντον οἰκεόντων Ἑλλήνων, τὸν Σάλμοξιν τοῦτον εἶντα ἄνθρωπον δουλεῦσαι ἐν Σάμῳ, δουλεῦσαι δὲ Πυθαγόρῃ τῷ Μνησάρχῳ ἐνθεῦτεν δὲ αὐτὸν γενόμενον ἐλεύθερον χρήματα κτήσασθαι συχνά, κτησάμενον δὲ ἀπελθεῖν ἐς τὴν ἑωυτοῦ ἄτε δὲ κακοβίων τε εἶντων τῶν Θρηίκων καὶ ὑπαφρονεστέρων, τὸν Σάλμοξιν τοῦτον ἐπιστάμενον δίαίτᾱν τε Ἰάδα καὶ ἥθεα

P28 [= HER. D26]

Pythagoras, son of Mnesarchus, devoted himself to investigation more than all other men, and after he had made a selection of these writings [scil. probably: the writings of other people] he devised his own wisdom: much learning, evil artifice.

In Ion of Chios (P29)

P29 (< 36 B4) Ion of Chios in Diogenes Laertius

Ion of Chios says about him [i.e. Pherecydes, cf. **PHER. R1**]:

[. . .]

If indeed Pythagoras, truly wise beyond all [or: about all things],

Made acquaintance with men's thoughts and knew them thoroughly.

In Herodotus (P30)

P30 (14.2) Herodotus, *Histories*

[95] As I have learned from the Greeks who live on the Hellespont and the Black Sea, this Salmoxis, who was a human being [scil. although the Thracians venerated him as a god], had been a slave in Samos, a slave of Pythagoras the son of Mnesarchus. When he was set free there, he acquired great wealth, and once he had done so he returned home. As the Thracians were poor and rather stupid, while Salmoxis knew the Ionian way of life, and manners more refined than the Thracians', since he had

βαθύτερα ἢ κατὰ Θρηίκας, οἷα Ἑλλησί τε ὁμιλήσαντα καὶ Ἑλλήνων οὐ τῷ ἀσθενεστάτῳ σοφιστῇ Πυθαγόρῃ, κατασκευάσασθαι ἀνδρεῶνα, ἐς τὸν πανδοκεύοντα τῶν ἀστῶν τοὺς πρώτους καὶ εὐωχέοντα ἀναδιδάσκειν ὥς οὔτε αὐτὸς οὔτε οἱ συμπόται αὐτοῦ οὔτε οἱ ἐκ τούτων αἰεὶ γινόμενοι ἀποθανέονται, ἀλλ' ἥξουσι ἐς χῶρον τοῦτον ἵνα αἰεὶ περιέοντες ἕξουσι τὰ¹ πάντα ἀγαθὰ. ἐν ᾧ δὲ ἐποίεε τὰ καταλεχθέντα καὶ ἔλεγε ταῦτα, ἐν τούτῳ κατάγαιον οἴκημα ἐποιέετο. ὥς δέ οἱ παντελέως εἶχε τὸ οἴκημα, ἐκ μὲν τῶν Θρηίκων ἠφανίσθη, καταβὰς δὲ κάτω ἐς τὸ κατάγαιον οἴκημα διαιτᾶτο ἐπ' ἕτα τρία· οἱ δέ μιν ἐπόθεόν τε καὶ ἐπένθεον ὥς τεθνεῶτα. τετάρτῳ δὲ ἔτει ἐφάνη τοῖσι Θρηίξι, καὶ οὕτω πιθανά σφι ἐγένετο τὰ ἔλεγε ὁ Σάλμοξις. ταῦτά φασί μιν ποιῆσαι. [96] ἐγὼ δὲ περὶ μὲν τούτου καὶ τοῦ καταγαίου οἰκήματος οὔτε ἀπιστέω οὔτε ὦν πιστεύω τι λίην, δοκέω δὲ πολλοῖσι ἔτεσι πρότερον τὸν Σάλμοξιν τοῦτον γενέσθαι Πυθαγόρῳ.

¹ τὰ del. Krüger

In Democritus (P31)

P31 (< 14.6) Diog. Laert. 9.38

[. . .] ἀλλὰ καὶ αὐτοῦ Πυθαγόρου μέμνηται, θαυμάζων αὐτὸν ἐν τῷ ὁμωνύμῳ συγγράμματι [. . .] [= **ATOM. P24**].

associated with Greeks and, among the Greeks, with one who was not at all the weakest, the sage Pythagoras, he had a residence built for himself, where he received and entertained the first of the citizens, teaching them that neither he nor his guests nor their descendants would ever die, but that they would come to a place where they would live forever and would possess all good things. But while he was doing this and saying what I have said, at the same time he had a subterranean dwelling built for himself. When the dwelling was finished, he vanished from the sight of the Thracians, and having descended into the subterranean dwelling he spent three years there. They missed him and mourned him, thinking that he had died. But in the fourth year he appeared to the Thracians, and thus what Salmoxis had said seemed credible to them. This is what they say he did. [96] As for me, I neither disbelieve the story about him and his subterranean dwelling, nor do I believe it very much, but I think that this Salmoxis lived many years earlier than Pythagoras.

In Democritus (P31)

P31 (< 14.6) Thrasyllus in Diogenes Laertius

[. . .] in fact, he mentions Pythagoras himself admiringly in the work of his that bears his name [. . .] [cf. **ATOM. D2** [1.1], **P21**; cf. **P5**].

EARLY GREEK PHILOSOPHY IV

Other References (P32–P33)

In Xenophanes (P32)

P32 (21 B7) Diog. Laert. 8.36

περὶ δὲ τοῦ ἄλλοτε ἄλλον αὐτὸν γεγενῆσθαι Ξενοφάνης ἐν ἐλεγείᾳ προσμαρτυρεῖ [. . . = **XEN. D64**].

In Empedocles? (P33)

P33 (31 B129) Porph. VP 30

αὐτὸς δὲ τῆς τοῦ παντὸς ἁρμονίας ἡκροᾶτο συνιείς τῆς καθολικῆς τῶν σφαιρῶν καὶ τῶν κατ' αὐτὰς κινουμένων ἀστέρων ἁρμονίας, ἥς ἡμᾶς μὴ ἀκούειν διὰ σμικρότητα τῆς φύσεως. τούτοις καὶ Ἐμπεδοκλῆς μαρτυρεῖ λέγων περὶ αὐτοῦ [. . . = **EMP. D38**].

Later Reports about the Sage and

Holy Man (P34–P42)

Between God and Man (P34–P36)

P34 (14.7) Ael. Var. hist. 2.26

Ἀριστοτέλης λέγει [Frag. 191 Rose] ὑπὸ τῶν Κροτωνιατῶν τὸν Πυθαγόραν¹ Ἀπόλλωνα Ὑπερβόρειον προσ-αγορεύεσθαι.

¹ πύθιον mss., corr. Gessner

PYTHAGORAS a

Other References (P32–P33)

In Xenophanes (P32)

P32 (21 B7) Diogenes Laertius

About the fact that he [i.e. Pythagoras] became a different person at different times, Xenophanes provides testimony in his elegiac poem [. . . = **XEN. D64**].

In Empedocles? (P33)

P33 (31 B129) Porphyry, *Life of Pythagoras*

He himself heard the harmony of the whole, because he had understood the universal harmony of the spheres of the heavenly bodies that move because of them—something that we other people do not hear because of the smallness of our nature. This is what Empedocles testifies to when he says about him, [. . . = **EMP. D38**].

Later Reports about the Sage and

Holy Man (P34–P42)

Between God and Man (P34–P36)

P34 (14.7) Aristotle in Aelian, *Historical Miscellany*

Aristotle says that Pythagoras was called ‘Hyperborean Apollo’ by the Crotonians.

P35 (\neq DK) Iambl. VP 30

[. . .] οἱ μὲν τὸν Πύθιον, οἱ δὲ τὸν ἐξ Ὑπερβορέων Ἀπόλλωνα, οἱ δὲ τὸν Παιᾶνα, οἱ δὲ τῶν τὴν σελήνην κατοικούντων δαιμόνων ἕνα, ἄλλοι δὲ ἄλλον τῶν Ὀλυμπίων θεῶν φημίζοντες¹ [. . .].

¹ ἐφήμιζον F, corr. Deubner

P36 (14.7) Iambl. VP 31

ἱστορεῖ δὲ Ἀριστοτέλης ἐν τοῖς περὶ τῆς Πυθαγορικῆς φιλοσοφίας [Frag. 192 Rose] διαίρεσιν τινα τοιάνδε ὑπὸ τῶν ἀνδρῶν ἐν τοῖς πάνυ ἀπορρήτοις διαφυλάττεσθαι τοῦ λογικοῦ ζώου τὸ μὲν ἐστὶ θεός, τὸ δὲ ἄνθρωπος, τὸ δὲ οἶον Πυθαγόρας.

*Earlier Lives (P37–P39)***P37** (< 14.8) Diog. Laert. 8.4–5

[4] τοῦτόν φησιν Ἡρακλείδης ὁ Ποντικὸς [Frag. 89 Wehrli] περὶ αὐτοῦ τάδε λέγειν, ὡς εἴη ποτὲ γεγωνὸς Αἰθαλίδης καὶ Ἑρμοῦ υἱὸς νομισθεῖν τὸν δὲ Ἑρμῆν εἰπεῖν αὐτῷ ἐλέσθαι ὅ τι ἂν βούληται πλὴν ἀθανασίας. αἰτήσασθαι οὖν ζῶντα καὶ τελευτῶντα¹ μνήμην ἔχειν τῶν συμβαινόντων. ἐν μὲν οὖν τῇ ζωῇ πάντων διαμνημονεύσαι, ἐπεὶ δὲ ἀποθάνοι τηρῆσαι τὴν αὐτὴν μνήμην. χρόνῳ δ' ὕστερον εἰς Εὐφορβον ἐλθεῖν καὶ ὑπὸ Μενέλεω τρωθῆναι. ὁ δ' Εὐφορβος ἔλεγεν ὡς

P35 (\neq DK) Iamblichus, *Life of Pythagoras*

[. . .] some said that he was the Pythian [i.e. Delphic Apollo], others the Apollo from the Hyperboreans, others the god Paeon, others one of the divinities (*daimones*) that live on the moon, others some other Olympian god [. . .].

P36 (14.7) Aristotle in Iamblichus, *Life of Pythagoras*

Aristotle reports in his writings on Pythagoras' philosophy that these men preserved among their most secret doctrines the following classification: among rational living beings, one kind is divine, another is human, and another is such as Pythagoras.

Earlier Lives (P37–P39)

P37 (< 14.8) Heraclides of Pontus in Diogenes Laertius

[4] Heraclides of Pontus says that he [i.e. Pythagoras] used to say about himself that he had once been Aethalides and was considered to be Hermes' son; and that Hermes had said to him that he could choose whatever he wanted except immortality. So he had asked to preserve, both living and dead, a memory of what happened. So he remembered all things during his lifetime; and when he died, he preserved the same memory. Later in time he entered into Euphorbus and was wounded by Menelaus. And Euphor-

¹ τελευτήσαντα Cobet

Αἰθαλίδης ποτὲ γέγονοι καὶ ὅτι παρ' Ἑρμοῦ τὸ δῶρον λάβοι καὶ τὴν τῆς ψυχῆς περιπόλησιν, ὥς περιεπολήθη καὶ εἰς ὅσα φυτὰ καὶ ζῶα παρεγένετο καὶ ὅσα ἡ ψυχὴ ἐν τῷ Ἄιδῃ² ἔπαθε καὶ αἱ λοιπαὶ τίνα ὑπομένουσιν. [5] ἐπειδὴ δὲ Εὐφορβος ἀποθάνοι, μεταβῆναι τὴν ψυχὴν αὐτοῦ εἰς Ἑρμότιμον [. . .] ἐπειδὴ δὲ Ἑρμότιμος ἀπέθανε, γενέσθαι Πύρρον τὸν Δῆλιον ἀλιέα καὶ πάντα πάλιν μνημονεύειν, πῶς πρόσθεν Αἰθαλίδης, εἴτ' Εὐφορβος, εἴτα Ἑρμότιμος, εἴτα Πύρρος γένοιτο. ἐπειδὴ δὲ Πύρρος ἀπέθανε, γενέσθαι Πυθαγόραν καὶ πάντων τῶν εἰρημένων μεμνήσθαι.

² ἐν Ἄιδου Cobet

P38 (≠ DK) Porph. VP 45

ἀνέφερεν δ' αὐτὸν εἰς τοὺς πρότερον γεγονότας, πρῶτον μὲν Εὐφορβος λέγων γενέσθαι, δεύτερον δ' Αἰθαλίδης,¹ τρίτον Ἑρμότιμος, τέταρτον δὲ Πύρρος, νῦν δὲ Πυθαγόρας. δι' ὧν ἐδείκνυνεν ὡς ἀθάνατος ἡ ψυχὴ καὶ τοῖς κεκαθαρμένοις εἰς μνήμην τοῦ παλαιοῦ βίου ἀφικνεῖται.

¹ πρῶτον μὲν Αἰθαλίδης . . . δεύτερον δ' Εὐφορβος conl. Nauck

P39 (< 14.8) Ps.-Iambl. *Theol.*, p. 52.8–18

Ἄνδροκύδης τε ὁ Πυθαγορικὸς ὁ Περὶ τῶν συμβόλων γράψας καὶ Εὐβουλίδης ὁ Πυθαγορικὸς καὶ Ἀριστό-

bus said that he had once been Aethalides and that he had received from Hermes this gift and the wandering of the soul, how it had wandered and all the plants and animals it had been in and everything that his soul had experienced in Hades and that the other souls endure there. [5] And when Euphorbus died, his soul passed into Hermotimus [. . .]. And when Hermotimus died, he became Pyrrhus, the Delian fisherman; and once again he remembered everything, how he had formerly been Aethalides, then Euphorbus, then Hermotimus, then Pyrrhus. And when Pyrrhus died, he became Pythagoras and remembered everything I have mentioned.

P38 (\neq DK) Porphyry, *Life of Pythagoras*

He himself traced himself back to people who had lived earlier, saying that first he had been Euphorbus, second Athalides, third Hermotimus, fourth Pyrrhus, and now Pythagoras, and in this way he showed that the soul is immortal and that in those who are pure it succeeds in remembering its earlier life.

P39 (< 14.8) Ps.-Iamblichus, *Theology of Arithmetic*

Androcydes the Pythagorean, who wrote *On Symbols*, Aristoxenus, Hippobotus, and Neanthes, who have writ-

ξενος καὶ Ἰππόβοτος καὶ Νεάνθης οἱ τὰ¹ κατὰ τὸν
 ἄνδρα ἀναγράψαντες σις' ἔτεσι τὰς μετεμψυχώσεις
 τὰς αὐτῷ συμβεβηκυίας ἔφασαν γεγονέναι. μετὰ τοσ-
 αῦτα γοῦν ἔτη εἰς παλιγγενεσίαν ἐλθεῖν Πυθαγόραν²
 καὶ ἀναζῆσαι ὥσανεὶ μετὰ τὴν πρώτην ἀνακύκλησιν³
 καὶ ἐπάνοδον τοῦ ἀπὸ ἐξ ψυχογονικοῦ κύβου, τοῦ δ'
 αὐτοῦ καὶ ἀποκαταστατικοῦ διὰ τὸ σφαιρικόν, ὥς δέ
 καὶ ἄλλοτε³ διὰ τούτων ἀνάζησιν ἔσχεν· ᾧ καὶ συμ-
 φωνεῖ τὸ Εὐφόρβου τὴν ψυχὴν ἐσχηκέναι κατὰ γε⁴
 τοὺς χρόνους [. . . = P5].

¹ τὰ A, om. cett.

² ἀνακύκλησιν xA: ἀνακύκλωσιν p

³ ἄλλοτε γA: ἄλλο Pp: ἄλλην Ast

⁴ γε Ast: τε xAp

His Descent to the Underworld, or

Katabasis (P40–P41)

His Encounter with Hesiod and Homer (P40)

P40 (≠ DK) Diog. Laert. 8.21

φησὶ δ' Ἱερώνυμος [Frag. 42 Wehrli] κατελθόντα αὐτὸν
 εἰς Ἄιδου τὴν μὲν Ἡσιόδου ψυχὴν ἰδεῖν πρὸς κίονι
 χαλκῷ δεδεμένην καὶ τρίζουσαν, τὴν δὲ Ὀμήρου κρε-
 μαμένην ἀπὸ δένδρου καὶ ὄφεις περὶ αὐτὴν, ἀνθ' ὧν
 εἶπον περὶ θεῶν, κολαζομένους δὲ καὶ τοὺς μὴ θέλον-
 τας συνεῖναι ταῖς ἑαυτῶν γυναιξί· καὶ δὴ καὶ διὰ
 τοῦτο τιμηθῆναι ὑπὸ τῶν ἐν Κρότῳ.

ten about this man, stated that the metempsychoses he experienced lasted 216 years. So it was after this number of years that Pythagoras came to be reborn and to live again—just like after the first cycle and return of the cube of six, generator of the soul, which is also recurrent by reason of its spherical character, as he also obtained a second life at other times for these reasons. This agrees with his having received the soul of Euphorbus at that time [. . .].

*His Descent to the Underworld, or
Katabasis (P40–P41)*

His Encounter with Hesiod and Homer (P40)

P40 (≠ DK) Hieronymus of Rhodes in Diogenes Laertius

Hieronymus says that when he [i.e. Pythagoras] descended to Hades he saw Hesiod's soul bound to a bronze column and shrieking, and Homer's hung from a tree and surrounded by snakes, because of what they had said about the gods, and that he also saw that those who did not want to have sexual intercourse with their own wives were punished; and this is precisely why the Crotonians honored him.

*A Rationalizing Interpretation of the
Katabasis (P41)*

P41 (\neq DK) Diog. Laert. 8.41

λέγει γὰρ [Hermippus Frag . 20 Wehrli] ὥς γενόμενος ἐν Ἰταλίᾳ κατὰ γῆς οἰκίσκον ποιήσαι καὶ τῇ μητρὶ ἐντείλαιτο τὰ γινόμενα εἰς δέλτον γράφειν σημειομένην καὶ τὸν χρόνον, ἔπειτα καθιέναι αὐτῷ¹ ἔστ' ἂν ἀνέλθῃ. τοῦτο ποιῆσαι τὴν μητέρα. τὸν δὲ Πυθαγόραν μετὰ χρόνον ἀνελθεῖν ἰσχυρὸν² καὶ κατεσκευασμένον εἰσελθόντα τε εἰς τὴν ἐκκλησίαν φάσκειν ὥς ἀφίκται ἐξ Ἰαίδου καὶ δὴ καὶ ἀνεγίνωσκειν αὐτοῖς τὰ συμβεβηκότα. οἱ δὲ σαινόμενοι τοῖς λεγομένοις ἐδάκρυνόν τε καὶ ᾤμωζον καὶ ἐπίστευον εἶναι τὸν Πυθαγόραν θεῖόν τινα, ὥστε καὶ τὰς γυναῖκας αὐτῷ παραδοῦναι, ὥς καὶ μαθησομένας τι τῶν αὐτοῦ. ἃς καὶ Πυθαγορικὰς κληθῆναι. καὶ ταῦτα μὲν ὁ Ἑρμιππος [. . .].

¹ αὐτῷ B²FΦ: αὐτὸν B¹: αὐτὸ P
γνὸς Φ

² ἰσχυρὸν BPF: στυναγνὸς Φ

The Harmony of the Spheres

See **P33**

PYTHAGORAS a

A Rationalizing Interpretation of the Katabasis (P41)

P41 (≠ DK) Hermippus in Diogenes Laertius

Hermippus also says something else about Pythagoras: that after he arrived in Italy, he built a small subterranean dwelling and ordered his mother to note and write down on a tablet what happened and when, and then to send this down to him until he came back up. His mother did this. After some time Pythagoras came back up, withered and reduced to a skeleton. He went into the Assembly and said he was returning from Hades; and he read out to them what had happened. They were so moved by what he said that they wept, groaned, and were convinced that Pythagoras was someone divine, so that they even entrusted their wives to him so that they would learn some of his teachings; and these were also called the Pythagorean women. And this is what Hermippus says [. . .].¹

¹ Hermippus' story is derived from the one Herodotus tells about Zalmoxis (see **P30**).

The Harmony of the Spheres

See **P33**

*Other Prodigies and Marvels (P42)***P42** (14.7) Apoll. Mir. 6

τούτοις δὲ ἐπιγενόμενος Πυθαγόρας Μνησάρχου υἱὸς τὸ μὲν πρῶτον ἐπονείτο περὶ τὰ μαθήματα καὶ τοὺς ἀριθμούς, ὕστερον δὲ ποτε καὶ τῆς Φερεκύδου τερατοποιίας οὐκ ἀπέστη. καὶ γὰρ ἐν Μεταποντίῳ πλοίου ἐισερχομένου¹ φορτίον ἔχοντος² καὶ τῶν παρατυχόντων εὐχομένων σωστὸν εἶναι κατελθεῖν³ διὰ τὸν φόρτον, ἐστῶτα τοῦτον εἰπεῖν “νεκρὸν⁴ τοῖνυν φανήσεται ὑμῖν σῶμα ἄγον τὸ πλοῖον τοῦτο.” πάλιν δὲ ἐν Κανλωνία, ὥς φησιν Ἀριστοτέλης [Frag. 191 Rose], <προυσήμηνε τὴν λευκὴν ἄρκτον. καὶ ὁ αὐτὸς Ἀριστοτέλης⁵ γράφων περὶ αὐτοῦ πολλὰ μὲν καὶ ἄλλα λέγει καὶ τὸν ἐν Τυρρηνίᾳ, φησίν, δάκνοντα θανάσιμον ὄφιν, αὐτὸς δάκνων, ἀπέκτεινεν. καὶ τὴν γινομένην δὲ στάσιν τοῖς Πυθαγορείοις προειπεῖν διὸ καὶ εἰς Μεταπόντιον ἀπῆρεν ὑπὸ μηδενὸς θεωρηθείς, καὶ ὑπὸ τοῦ Κόσα⁶ ποταμοῦ διαβαίνων ἤκουσε φωνὴν μεγάλην ὑπὲρ ἄνθρωπον “Πυθαγόρα, χαῖρε.” τοὺς δὲ παρόντας περιδεεῖς γενέσθαι· ἐφάνη δὲ ποτε καὶ ἐν Κρότῳ καὶ ἐν Μεταποντίῳ τῇ αὐτῇ ἡμέρᾳ καὶ ὥρᾳ· ἐν θεάτρῳ δὲ καθήμενός ποτε ἐξανίστατο,⁷ ὥς φησιν

¹ ἐν Μεταποντίῳ πλοίου ἐισερχομένου Rose: τῷ ποντίῳ πλοίῳ ἐισερχομένῳ ms.

² ἔχοντι ms., corr. Keller

³ κατελθεῖν ms.: καὶ ἐλθεῖν Teucher

Other Prodigies and Marvels (P42)

P42 (14.7) Aristotle in Apollonius, *Wonders*

Pythagoras, son of Mnesarchus, who lived after these men [i.e. Epimenides, Aristeeas, Hermotimus, Abaris, and Pherecydes], at first worked on the sciences and numbers, but later he did not refrain from the miracle-working of Pherecydes. For one day when a boat was sailing in at Metapontum bearing a cargo and the bystanders prayed that it arrive safely because of its cargo, he stood up and said, "Well, it will be revealed to you that what this ship is carrying is a dead body." And another time, in Caulonia, as Aristotle says <he predicted the appearance of the white bear. The same Aristotle>, who has written many things about him, also says, "he killed, by biting it himself, the Tyrrhenian snake, whose bite is deadly." And he predicted to the Pythagoreans that there would be a revolt. And that is why he left for Metapontum without letting anyone observe him. And while he was crossing the Cosas river together with other people he heard from it a great, superhuman voice: "Hail, Pythagoras!"; the people present were terrified. And once he appeared on the same day and at the same hour both in Croton and in Metapontum. And once when he was sitting in the theater he stood up, as

⁴ νεκρὸν Meursius ex Iambl. VP 142: μικρὸν ms.

⁵ add. Diels post Rose ex. Iambl. VP 142

⁶ Κόσα Rose (cf. Ael. Var. hist. 2.26): κατὰ σάμον ms.

⁷ ἐξάνίσταται ms., corr. Hercher

Ἀριστοτέλης, καὶ τὸν ἴδιον μηρὸν παρέφηνε⁸ τοῖς καθημένοις⁹ χρυσοῦν.

⁸ παρέφηνε Rose ex Aeliano VH 2.26 et 4.17.: παρέφαινε ms
⁹ εἰς post καθημένοις hab. ms., del. Westermann post Rittershausen

A Caricature by the Skeptic Timon of Phlius (P43)

P43 (≠ DK) Diog. Laert. 8.36 (et al.)

τὴν δὲ σεμνοπρέπειαν τοῦ Πυθαγόρου καὶ Τίμων ἐν τοῖς Σίλλοις [Frag. 57 Di Marco] δάκνων αὐτὸν ὅμως οὐ παρέλιπεν, εἰπὼν οὕτως·

Πυθαγόρην τε γόητας ἀποκλίνοντ¹ ἐπὶ δόξας
θήρη ἐπ' ἀνθρώπων, Σεμνηγορίης² ὀαριστήν.

¹ ἀποκλίνοντ' Plut. Num. 8.8: ἀπόκλινον BP¹: ἄπο κλεινὸν
FP⁴: ἀποκλίναν τὲ D ² Σεμνηγορίης Di Marco: σεμν-
mss.

Four Versions of Pythagoras' Death (P44)

P44 (≠ DK) Diog. Laert. 8.39–40

a

[39] ἐτελεύτα δ' ὁ Πυθαγόρας τοῦτον τὸν τρόπον. συνεδρεύοντος μετὰ τῶν συνήθων ἐν τῇ Μίλωνος οἰκίᾳ τοῦ <ἀθλη>τοῦ,¹ ὑπὸ τινος τῶν μὴ παραδοχῆς ἀξιω-

PYTHAGORAS a

Aristotle says, and showed to the spectators his own thigh, which was of gold.

See also **PHER. P10, R13**

A Caricature by the Skeptic Timon of Phlius (P43)

P43 (≠ DK) Diogenes Laertius

Pythagoras' solemn dignity was not ignored by Timon in his *Satires* (*Silloi*) either, biting him though he was; he speaks as follows:

[. . .] and Pythagoras, inclining toward magical opinions

In his hunt for humans, the lover of Lofty Utterance.

Four Versions of Pythagoras' Death (P44)

P44 (≠ DK) Diogenes Laertius

a

[39] Pythagoras died in the following way. While he was sitting with his companions in the athlete Milo's house, it happened that the house was set on fire out of envy by one

¹ τοῦ <ἀθλη>τοῦ Cobet: τοῦτου mss.

θέντων διὰ φθόνον ὑποπρησθῆναι τὴν οἰκίαν συνέβη (τινὲς δ' αὐτοὺς τοὺς Κροτωνιάτας τοῦτο πράξαι, τυραννίδος ἐπίθεσιν εὐλαβουμένους). τὸν δὲ Πυθαγόραν καταλειφθῆναι διεξιόντα· καὶ πρὸς τινι χωρίῳ γενόμενος² πλήρει κνάμων, ἵνα <μῆ>³ διέρχοιτο,⁴ αὐτόθι ἔστη, εἰπὼν ἀλῶναι <ᾶν>⁵ μᾶλλον ἢ πατῆσαι, ἀναιρεθῆναι δὲ κρεῖττον ἢ λαλῆσαι⁶ καὶ ὧδε πρὸς τῶν διωκόντων ἀποσφαγῆναι [. . .].

² γενόμενος Frobenius: γενόμενον mss.

³ <μῆ> Delatte ⁴ διέρχοιτο Delatte: διήρχετο Suda II. 3020: om. mss. ⁵ <ᾶν> Cobet

⁶ ἀναιρεθῆναι . . . λαλῆσαι del. Cobet

b

[40] φησὶ δὲ Δικαίαρχος [Frag. 35b Wehrli] τὸν Πυθαγόραν ἀποθανεῖν καταφυγόντα εἰς τὸ ἐν Μεταποντίῳ ἱερὸν τῶν Μουσῶν, τετταράκοντα ἡμέρας ἀσιτήσαντα.

c

Ἡρακλείδης δὲ φησιν ἐν τῇ τῶν Σατύρου βίῳ ἐπιτομῇ [Satyr. Frag. 11 Schorn] μετὰ τὸ θάψαι Φερεκύδην ἐν Δήλῳ ἐπανελθεῖν εἰς Ἰταλίαν καὶ πανδαισίαν εὐρόντα Κύλωνος τοῦ Κροτωνιάτου εἰς Μεταπόντιον ὑπεξελθεῖν κακεῖ τὸν βίον καταστρέψαι ἀσιτία, μὴ βουλόμενον περαιτέρω ζῆν.

PYTHAGORAS a

of the people who were not considered worthy of being admitted to him; but some say it was the Crotonians themselves who did this, to prevent the establishment of a tyranny. Pythagoras was caught as he was going out: he got as far as a field full of beans, where he stopped so that he would <not> cross it, saying that he would rather be captured than trample them, and would rather be killed than talk nonsense; and this is how his pursuers cut his throat [. . .].

b

[40] But Dicaearchus says that Pythagoras died after he had fled into the temple of the Muses at Metapontum, when he spent forty days without eating.

c

Heraclides in his *Epitome of Satyrus' Biographies* says that after he had buried Pherecydes at Delos he returned to Italy and having attended a sumptuous banquet given by Cylon of Croton he withdrew to Metapontum and there ended his life by starvation, since he did not wish to live any longer.

d

Ἑρμῖππος δέ φησι [Frag. 20 Wehrli], πολεμούντων Ἀκραγαντίνων καὶ Συρακουσίων, ἐξελθεῖν μετὰ τῶν συνήθων τὸν Πυθαγόραν καὶ προστῆναι τῶν Ἀκραγαντίνων τροπῆς δὲ γενομένης περικάμπτοντα αὐτὸν τὴν τῶν κυάμων χώραν ὑπὸ τῶν Συρακουσίων ἀναιρεθῆναι [. . .].

Civic Honors and Religious Aura (P45–P46)

P45 (< 14.5) Arist. *Rhet.* 2.23 1398b9–16

[. . .] καὶ ὡς Ἀλκιδάμας [= Frag. 10 Avezzù], ὅτι πάντες τοὺς σοφοὺς τιμῶσιν. [. . .] καὶ Ἰταλιῶται Πυθαγόραν [. . .] ἔθαιψαν καὶ τιμῶσιν ἔτι καὶ νῦν [. . .].

P46

a (≠ DK) Diog. Laert. 8.15

Μεταποντῖνοί γε μὴν τὴν μὲν οἰκίαν αὐτοῦ Δήμητρος ἱερὸν ἐκάλουν, τὸν στενωπὸν δὲ¹ Μουσεῖον, ὥς φησι Φαβωρίνος ἐν Παντοδαπαῖς ἱστορίαις [Frag. 78 Amato].

¹ δὲ P^x.: om. BP¹F

d

But Hermippus says that when the Agrigentines and Syracusans were at war, Pythagoras went out with his companions and fought in the frontline of the Agrigentines; and when they were routed, he was killed by the Syracusans as he was going around the bean field [. . .].

Civic Honors and Religious Aura (P45–P46)

P45 (< 14.5) Aristotle, *Rhetoric*

[. . .] and as Alcidamas says, that everyone honors the sages; [. . .] and the Italians buried [. . .] Pythagoras and honor him to this very day [. . .].

P46

a (≠ DK) Diogenes Laertius

Indeed, the Metapontians called his house ‘the temple of Demeter’ and his little street ‘the Museum,’ as Favorinus says in his *Miscellaneous Histories*.

b (> 14.13) Just. *Epitoma* 20.4

Pythagoras autem cum annos XX Crotone egisset, Metapontum emigravit ibique decessit; cuius tanta admiratio fuit, ut ex domo eius templum facerent eumque pro deo colerent.

c (< 14.13) Porph. *VP* 4

τὴν δ' οἰκίαν Δήμητρος ἱερὸν ποιῆσαι τοὺς Κροτωνιάτας, τὸν δὲ στενωπὸν καλεῖν Μουσεῖον.

b (> 14.13) Justin, *Epitome of Pompeius Trogus*

After Pythagoras had spent twenty years at Croton, he emigrated to Metapontum and died there; the admiration for him was so great that they made his house a temple and worshipped him as a god.

c (< 14.13) Porphyry, *Life of Pythagoras*

The Crotonians made his house a temple of Demeter, and call his little street ‘the Museum.’

Iconography (P47)

P47 (cf. vol. 1, p. xii) Richter I, pp. 79–80 and Figures 302–5; Richter-Smith, p. 193 and Figures 152–53; Koch, “Ikonographie,” in Flashar, Bremer, Rechenauer (2013), I.1, pp. 220–22; see also Zhmud 2012, p. 44, n. 71.

PYTHAGORAS b

THE INSTITUTION

The Community of Life and of Teaching (T1–T6)
The Pythagorean Way of Life (T1)

T1 (14.10) Plat. *Rep.* 10 600a–b

ἀλλὰ δὴ εἰ μὴ δημοσία, ἰδίᾳ τισὶν ἡγεμῶν παιδείας αὐτὸς ζῶν λέγεται Ὅμηρος γενέσθαι, οἱ ἐκείνον ἡγάπων ἐπὶ συνουσία καὶ τοῖς ὑστέροις ὁδὸν τινα παρέδωκαν βίου Ὀμηρικῆν, ὥσπερ Πυθαγόρας αὐτὸς τε διαφερόντως ἐπὶ τούτῳ ἡγαπήθη, καὶ οἱ ὑστεροὶ ἔτι καὶ νῦν Πυθαγόρειον τρόπον ἐπονομάζοντες τοῦ βίου διαφανεῖς πῃ δοκοῦσιν εἶναι ἐν τοῖς ἄλλοις.

Friendship (T2–T3)

T2 (16 Mansfeld) Diog. Laert. 8.10

εἰπέ τε πρῶτος, ὥς φησι Τίμαιος [FGrHist 566 F13b], κοινὰ τὰ φίλων εἶναι καὶ φιλίαν ἰσότητα. καὶ αὐτοῦ οἱ μαθηταὶ κατετίθεντο τὰς οὐσίας εἰς ἓν ποιούμενοι.

PYTHAGORAS b

THE INSTITUTION

The Community of Life and of Teaching (T1–T6)
The Pythagorean Way of Life (T1)

T1 (14.10) Plato, *Republic*

Homer is said to have been, if not publicly, then privately, by his mode of life, a leader in education for some people who loved to associate with him and who transmitted to posterity a certain ‘Homeric’ way of life, just as Pythagoras himself was extraordinarily loved for this reason, and later, men who even now call their way of life ‘Pythagorean’ seem to be distinguished in some way from the others.

Friendship (T2–T3)

T2 (≠ DK) Diogenes Laertius

As Timaeus says, he was the first to say that friends’ possessions are in common and that friendship is equality. And his disciples deposited their possessions, combining them into one.

T3 (< 58D.7) Iambl. VP 233, 237 (et al.)

[233] ἀλλὰ μὴν τεκμήραιτο ἂν τις καὶ περὶ τοῦ μὴ παρέργως αὐτοὺς¹ τὰς ἀλλοτρίας ἐκκλίνειν φιλίας, ἀλλὰ καὶ πάνν σπουδαίως περικάμπτειν αὐτὰς καὶ φυλάττεσθαι, καὶ περὶ τοῦ δὲ μέχρι πολλῶν γενεῶν τὸ φιλικὸν πρὸς ἀλλήλους ἀνένδοτον διατετηρηκέναι, καὶ ἐξ² ὧν Ἀριστόξενος ἐν τῷ περὶ Πυθαγορικοῦ βίου αὐτὸς διακηκοέναι φησὶ Διονυσίου τοῦ Σικελίας τυράννου [cf. Aristox. Frag. 31 Wehrli] [. . .]. [237] λέγεται δὲ ὡς καὶ ἀγνοοῦντες ἀλλήλους οἱ Πυθαγορικοὶ ἐπειρῶντο φιλικὰ ἔργα διαπράττεσθαι ὑπὲρ³ τῶν εἰς ὅψιν μηδέποτε ἀφιγμένων, ἥνικα τεκμήριόν τι λάβοιεν τοῦ μετέχειν τῶν αὐτῶν λόγων [. . .].

¹ αὐτοὺς Porph. VP 59: αὐτὸν ms.
ms.

² ita Porph., ἔκ τε

³ ὑπὲρ Scaliger: ὑπὸ ms.

Diet (T4–T6)

T4

a (14.9) Arist. in Aul. Gell. Noct. 4.11 (= Arist. Frag. 194 Rose)

Ἀριστοτέλης δὲ μήτρας καὶ καρδίας καὶ ἀκαλήφης καὶ τοιούτων τινῶν ἄλλων ἀπέχεσθαι φησιν τοὺς Πυθαγορικούς, χρῆσθαι δὲ τοῖς ἄλλοις.

b (cf. 58C.6) Diog. Laert. 8.19 (= Arist. Frag. 194 Rose)

παντὸς δὲ μᾶλλον ἀπηγόρευε μῆτ' ἐρυθίνον ἐσθίειν

T3 (< 58D.7) Iamblichus, *Life of Pythagoras*

[233] But one might also conclude from what Aristoxenus, in his *Life of Pythagoras*, says that he himself heard from Dionysius the tyrant of Sicily, both that it was not merely a secondary issue that they [i.e. the Pythagoreans] refused friendships with strangers, but that they took the greatest care to avoid these and to guard against them, and also that for many generations they firmly maintained the friendship that bound them with one another [. . .]. [237] It is also reported that, even when they did not know one another, the Pythagoreans tried to render friendly services to people they had never seen before, so long as they had proof that they shared the same doctrines [. . .].

Diet (T4–T6)

T4

a (14.9) Aristotle in Aulus Gellius, *Attic Nights*

Aristotle says that the Pythagoreans abstain from the womb, the heart, the sea anemone, and some other things of this sort, but that they eat the others.

b (cf. 58C.6) Aristotle in Diogenes Laertius

Above all he prohibited them from eating sea bream (?)

μήτε μελάνουρον, καρδίας τ' ἀπέχεσθαι καὶ κυάμων·
Ἀριστοτέλης δέ φησι καὶ μήτρας καὶ τρίγλης ἐνίοτε.

c (< 58C.6) Porph. VP 43, 45

[43] ἔλεγε δ' ἀπέχεσθαι τῶν καταθνομένων ὁσφύος
καὶ διδύμων καὶ αἰδοίων καὶ μυελοῦ καὶ ποδῶν καὶ
κεφαλῆς. [. . .] ἴσα δὲ κυάμων παρῆνει ἀπέχεσθαι
καθάπερ ἀνθρωπίνων σαρκῶν [. . .]. [45] ἀπέχεσθαι δὲ
καὶ ἄλλων παρῆνει, οἷον μήτρας τε καὶ τριγλίδος καὶ
ἀκαλήφης, σχεδὸν δὲ καὶ τῶν ἄλλων θαλασσίων ξυμ-
πάντων.

T5 (≠ DK) Porph. Abst. 1.26

ὅτι δὲ οὐκ ἀσεβὲς τὸ κτείνειν καὶ ἐσθίειν, δηλοῖ τὸ
καὶ αὐτὸν τὸν Πυθαγόραν, τῶν μὲν πάλαι διδόντων
γάλα πίνειν τοῖς ἀθλοῦσι καὶ τυροὺς δὲ ἐσθίειν ὕδατι
βεβρεγμένους, τῶν δὲ μετ' ἐκείνους ταύτην μὲν ἀπο-
δοκιμασάντων τὴν δίαιταν, διὰ <δὲ>¹ τῶν ξηρῶν σύ-
κων τὴν τροφὴν ποιουμένων τοῖς ἀθληταῖς, πρῶτον
περιελόντα τὴν ἀρχαίαν κρέα διδόναι τοῖς γυμναζο-
μένοις καὶ πολὺ διαφέρουσαν πρὸς ἰσχὺν εὐρεῖν δύ-
ναμιν. ἱστοροῦσι δὲ τινες καὶ αὐτοὺς ἄπτεσθαι τῶν
ἐμψύχων τοὺς Πυθαγορείους, ὅτε θύοιεν θεοῖς.

¹ add. nos

and the blacktail fish (?), and he ordered them to abstain from the heart and beans; Aristotle says also from the womb and red mullet sometimes.

c (< 58C.6) Porphyry, *Life of Pythagoras*

[43] He told them to abstain, among the sacrificial parts, from the loins, the testicles, the genitals, the marrow, the feet, and the head. [. . .] So too, he advised them to abstain from beans as though from human flesh [. . .]. [45] And he advised them to abstain from other things too, like the womb, the small red mullet, and the sea anemone, and from almost all creatures of the sea.

T5 (≠ DK) Porphyry, *On Abstinence*

The fact that it is not impious to kill and eat them [scil. animals] is proven by the fact that Pythagoras himself—while formerly they gave athletes milk to drink and cheese dipped in water to eat, and those who lived later rejected this diet and provided athletes with nutrition based on dry figs—was the first to reject the ancient [scil. diet] and to give meat to athletes, discovering a power that was much better for developing strength. And some people report that the Pythagoreans themselves laid hand upon living beings when they sacrificed to the gods.

T6 (< 58C.4) Iamb. VP 85

εἰς μόνα τῶν ζώων οὐκ εἰσέρχεται ἀνθρώπου ψυχῇ,
οἷς θέμις ἐστὶ τυθῆναι· διὰ τοῦτο τῶν θυσίμων χρῆ
ἐσθίειν μόνον (οἷς ἂν τὸ ἐσθίειν καθήκη), ἄλλου δὲ
μηδενὸς ζῶον.

The School: Characteristics and History (T7–T28)

Admission into the School (T7)

T7 (≠ DK) Iambl. VP 71

παρεσκευασμένῳ δὲ αὐτῷ οὕτως εἰς τὴν παιδείαν τῶν
ὁμιλητῶν, προσιόντων τῶν νεωτέρων¹ καὶ βουλομένων
συνδιατρίβειν οὐκ εὐθὺς συνεχώρει, μέχρις ἂν αὐτῶν
τὴν δοκιμασίαν καὶ τὴν κρίσιν ποιήσῃται, πρῶτον
μὲν πυνθανόμενος πῶς τοῖς γονεῦσι καὶ τοῖς οἰκείοις
τοῖς λοιποῖς πάρεισιν ὁμιληκότες, ἔπειτα θεωρῶν αὐ-
τῶν τοὺς τε γέλωτας τοὺς ἀκαίρους καὶ τὴν σιωπὴν
καὶ τὴν λαλιὰν παρὰ² τὸ δέον, ἔτι δὲ τὰς ἐπιθυμίας
τίνες εἰσὶ καὶ τοὺς γνωρίμους οἷς ἐχρῶντο καὶ τὴν
πρὸς τούτους ὁμιλίαν καὶ πρὸς τίνι μάλιστα τὴν
ἡμέραν σχολάζουσι καὶ τὴν χαρὰν καὶ τὴν λύπην ἐπὶ
τίσι τυγχάνουσι ποιούμενοι. προσεθεώρει δὲ καὶ τὸ
εἶδος καὶ τὴν πορείαν καὶ τὴν ὅλην τοῦ σώματος
κίνησιν, τοῖς τε τῆς φύσεως γνωρίσμασι φυσιογνω-
μονῶν αὐτοὺς σημεῖα τὰ φανερά ἐποιεῖτο τῶν ἀφανῶν
ἡθῶν ἐν τῇ ψυχῇ.

T6 (< 58C.4) Iamblichus, *Life of Pythagoras*

The only animals into which a human soul does not enter are those that it is licit to sacrifice: and this is why those for whom it is appropriate to eat must eat only those animals that one may sacrifice, but not any other animal.

The School: Characteristics and History (T7–T28)
Admission into the School (T7)

T7 (≠ DK) Iamblichus, *Life of Pythagoras*

When young men who wished to spend time with him came to him, prepared as he was in this way for the education of disciples, he did not admit them immediately, but waited until he had examined and judged them. First he found out how their relations were with their parents and their other relatives; then he observed them for inopportune fits of laughter and inappropriate silence and chattering, and [scil. observed] what their desires were, the friends they spent time with, their relation with these, how they mostly spent the day, and what caused them joy and grief. He also observed their appearance, their gait, the whole motion of their body, and, by examining them physiognomically using the traits of their nature, he made what was visible into signs for the invisible character in their soul.

¹ νεωτέρων Timaeus Taur. in schol. in Plat. *Phdr.* 279c: *ἐταίρων* ms.

² <τὴν> παρὰ Nauck

Pythagoras' Authority (T8–T10)

T8 (< 18.4) Iambl. VP 88

[. . .] εἶναι δὲ πάντα ἐκείνου τοῦ ἀνδρός· προσαγορεύουσι γὰρ οὕτω τὸν Πυθαγόραν, καὶ οὐ καλοῦσιν ὀνόματι.

T9 (12 Mansfeld) Diog. Laert. 8.46

[. . .] ἐφ' οὗ καὶ τὸ “αὐτὸς ἔφα” παροιμιακὸν εἰς τὸν βίον ἦλθεν.

T10 (< 58D.1) Iambl. VP 164

ῥοντο δὲ δεῖν κατέχειν καὶ διασώζειν ἐν τῇ μνήμῃ πάντα τὰ διδασκόμενά τε καὶ φραζόμενα, καὶ μέχρι τούτου συσκευάζεσθαι τάς τε μαθήσεις καὶ τὰς ἀκροάσεις, μέχρι ὅτου δύναται παραδέχεσθαι τὸ μανθάνον καὶ διαμνημονεῦον, ὅτι ἐκεῖνό ἐστιν $\hat{\omega}^1$ δεῖ γιγνώσκειν καὶ ἐν $\hat{\omega}^2$ γνώμην φυλάσσειν.

¹ $\hat{\omega}$ Küster post Obrechtum: \hat{o} ms.

² $\hat{\omega}$ Kiessling: $\tau\hat{\omega}$ ms.

The Practice of Silence (T11–T13)

T11 (\neq DK) Porph. VP 19

ἃ μὲν οὖν ἔλεγε τοῖς συνοῦσιν οὐδὲ εἰς ἔχει φράσαι βεβαίως· καὶ γὰρ οὐχ¹ ἡ τυχοῦσα ἦν παρ' αὐτοῖς σιωπή.

PYTHAGORAS b

Pythagoras' Authority (T8–T10)

T8 (< 18.4) Iamblichus, *Life of Pythagoras*

[. . .] everything belongs to the 'great man.' For this is how they designate Pythagoras, and they do not call him by his name.

T9 (≠ DK) Diogenes Laertius

It is about him [i.e. Pythagoras] that the proverbial phrase, "He himself said it," originated.

T10 (< 58D.1) Iamblichus, *Life of Pythagoras*

They thought that it was necessary to preserve and retain in memory everything that had been taught and said [scil. by Pythagoras], and to work on what they had learned and heard as far as the faculty of learning and memorizing was capable of assimilating it, because it is by means of this that one must learn, and in this that one must preserve one's thought.

The Practice of Silence (T11–T13)

T11 (≠ DK) Porphyry, *Life of Pythagoras*

What he said to his disciples, no one is able to report with certainty. For an extraordinary silence reigned among them.

¹ οὐχ Nauck: οὐδ' mss.

T12 (< 14.4) Isocr. *Bus.* 29

ἔτι γὰρ καὶ νῦν τοὺς προσποιουμένους ἐκείνου μαθη-
τὰς εἶναι μᾶλλον σιγῶντας θαυμάζουσιν¹ ἢ τοὺς ἐπὶ
τῷ λέγειν μεγίστην δόξαν ἔχοντας.

¹ θαυμάζουσιν ΓΕ: -ζομεν ΘΛ

T13 (16 Mansfeld) Diog. Laert. 8.10

πενταετίαν θ' ἡσύχαζον, μόνον¹ τῶν λόγων κατακού-
οντες καὶ οὐδέπω Πυθαγόραν ὀρῶντες εἰς ὃ δοκιμα-
σθεῖεν· τὸν τεύθεν δὲ ἐγίνοντο τῆς οἰκίας αὐτοῦ καὶ
τῆς ὄψεως μετέιχον.

¹ μόνων mss.: corr. Frobenius

Pythagoras' Audiences and Rhetoric (T14)

T14 (≠ DK) Schol. in Hom. *Od.* 1.1 (= Antisth. Frag. 51,
VA 187 G²)

οὕτω καὶ Πυθαγόρας λέγεται πρὸς παῖδας ἀξιωθεῖς
ποιήσασθαι λόγους διαθεῖναι πρὸς αὐτοὺς λόγους
παιδικούς, καὶ πρὸς γυναῖκας γυναιξὶν ἀρμοδίους,
καὶ πρὸς ἄρχοντας ἀρχοντικούς, καὶ πρὸς ἐφήβους
ἐφηβικούς· τὸν γὰρ ἐκάστοις πρόσφορον τρόπον τῆς
σοφίας ἐξευρίσκειν σοφίας ἐστίν.

T12 (< 14.4) Isocrates, *Busiris*

Even now people admire more for their silence those who claim to be his disciples than those who enjoy the greatest reputation for their speeches.

T13 (≠ DK) Diogenes Laertius

They remained silent for five years, only listening to what Pythagoras said but not yet seeing him until they were tested; but from that moment on they belonged to his household and had a share in the opportunity of seeing him.

Pythagoras' Audiences and Rhetoric (T14)

T14 (≠ DK) Antisthenes the Socratic in Scholia on Homer's *Odyssey*

They say that when Pythagoras was asked to make a speech to children he composed discourses suitable for children, when it was to women, ones suitable for women, when it was to rulers, ones suitable for rulers, when it was to ephebes, ones suitable for ephebes. For it belongs to wisdom to discover the kind of wisdom appropriate for each person.

EARLY GREEK PHILOSOPHY IV

*‘Knowers’ (mathêmatikoi) and ‘Listeners’
(akousmatikoi) (T15–T20)
The Nature of the Difference (T15–T18)*

T15 (21 Mansfeld) Diog. Laert. 8.15

ἐλεγόν τε καὶ οἱ ἄλλοι Πυθαγόρειοι μὴ εἶναι πρὸς πάντας πάντα ῥητά, ὥς φησιν Ἀριστόξενος ἐν δεκάτῳ Παιδευτικῶν νόμων [Frag. 43 Wehrli].

T16 (18.2) Porph. VP 37

διττὸν γὰρ ἦν αὐτοῦ τῆς διδασκαλίας τὸ σχῆμα. καὶ τῶν προσιόντων οἱ μὲν ἐκαλοῦντο μαθηματικοί, οἱ δ’ ἀκουσματικοί· καὶ μαθηματικοὶ μὲν οἱ τὸν περιττώτερον καὶ πρὸς ἀκρίβειαν διαπεπονημένον τῆς ἐπιστήμης λόγον ἐκμεμαθηκότες, ἀκουσματικοὶ δ’ οἱ μόνας τὰς κεφαλαιώδεις ὑποθήκας τῶν γραμμάτων ἄνευ ἀκριβεστέρας διηγήσεως ἀκηκοότες.

T17 (< 58C.4) Iambl. VP 82

ἔστι δὲ ἡ μὲν τῶν ἀκουσματικῶν φιλοσοφία ἀκούσματα ἀναπόδεικτα καὶ ἄνευ λόγου, ὅτι οὕτω πρακτέον, καὶ τᾶλλα, ὅσα παρ’ ἐκείνου ἐρρέθη, τὰῦτα πειρῶνται διαφυλάττειν ὥς θεῖα δόγματα, αὐτοὶ δὲ παρ’ αὐτῶν οὔτε λέγειν προσποιοῦνται οὔτε λεκτέον εἶναι, ἀλλὰ καὶ αὐτῶν ὑπολαμβάνουσι τούτους ἔχειν βέλτιστα πρὸς φρόνησιν, οἷτινες πλείστα ἀκούσματα ἔσχον [. . .].

'Knowers' (mathêmatikoi) and 'Listeners' (akousmatikoi) (T15–T20)
The Nature of the Difference (T15–T18)

T15 (≠ DK) Diogenes Laertius

The other Pythagoreans too used to say that not everything could be said to everyone, as Aristoxenus says in the tenth book of his *Rules of Education*.

T16 (18.2) Porphyry, *Life of Pythagoras*

His mode of instruction was double. And among those who came to him, the ones were called 'knowers' (*mathêmatikoi*), the others 'listeners' (*akousmatikoi*). The 'knowers' were the ones who learned completely the scientific discourse that was superior and had been elaborated precisely, and the 'listeners' those who heard only the summary instructions of the writings without the more precise explanations.

T17 (< 58C.4) Iamblichus, *Life of Pythagoras*

The philosophy of the 'listeners' (*akousmatikoi*) consists in acousmatic statements [cf. **PYTH. c D15–D25**] that are not demonstrated and lack a justification, ones asserting that one must act in such and such a way; and in general they try to respect everything that that man said as though they were divine teachings, while they themselves claim that on their own they neither say nor should say anything, but they suppose that among themselves those men are best fitted for wisdom who possess the largest number of acousmatic statements.

T18 (< 18.2) Iambl. VP 81 (et al.)

δύο γὰρ ἦν γένη καὶ τῶν μεταχειριζομένων αὐτήν, οἱ μὲν ἀκουσματικοί, οἱ δὲ μαθηματικοί. τουτωνὶ δὲ οἱ μὲν μαθηματικοὶ¹ ὠμολογοῦντο Πυθαγόρειοι εἶναι ὑπὸ τῶν ἐτέρων, τοὺς δὲ ἀκουσματικούς² οὗτοι οὐχ ὠμολόγουν, οὔτε τὴν πραγματείαν αὐτῶν εἶναι Πυθαγόρου, ἀλλὰ Ἰππάσου [. . .].

¹ μαθηματικοὶ P: μαθητικοὶ F: ἀκουσματικοὶ Iambl. Comm. 25, p. 76.19 ² ἀκουσματικούς] μαθηματικούς Comm. 25, p. 76.21

*A Rationalizing Explanation of
This Difference (T19)*

T19 (20 Mansfeld) Iambl. VP 87–88

[87] οἱ δὲ περὶ τὰ μαθήματα τῶν Πυθαγορείων τούτους τε ὁμολογοῦσιν εἶναι Πυθαγορείους, καὶ αὐτοὶ φασιν ἔτι μᾶλλον, καὶ ἃ λέγουσιν αὐτοὶ, ἀληθῆ εἶναι. τὴν δὲ αἰτίαν τῆς ἀνομοιότητος τοιαύτην γενέσθαι φασίν. [88] ἀφικέσθαι τὸν Πυθαγόραν ἐξ Ἰωνίας καὶ Σάμου κατὰ τὴν Πολυκράτους τυραννίδα, ἀκμαζούσης Ἰταλίας, καὶ γενέσθαι συνήθεις αὐτῷ τοὺς πρώτους ἐν ταῖς πόλεσι. τούτων δὲ τοῖς μὲν πρεσβυτέροις καὶ ἀσχόλοις διὰ τὸ ἐν πολιτικοῖς πράγμασι κατέχεσθαι, ὥς χαλεπὸν ὄν διὰ τῶν μαθημάτων καὶ ἀποδείξων ἐντυγχάνειν, ψιλῶς διαλεχθῆναι, ἡγούμενον οὐδὲν ἥττον ὠφελείσθαι καὶ ἄνευ τῆς αἰτίας εἰδότας τί δεῖ

T18 (< 18.2) Iamblichus, *Life of Pythagoras*

There were also two categories of those who practiced it [i.e. the philosophy of Pythagoras], the 'listeners' (*akousmatikoi*) and the 'knowers' (*mathematikoi*). Among these, the 'knowers' were recognized as Pythagoreans by the others, but they did not recognize the 'listeners' as being such, and they said that their doctrine was not that of Pythagoras, but that of Hippasus [. . . cf. **HIPPAS. P2**].¹

¹ In a parallel passage in Iamblichus, *On General Mathematical Science* 25, the words 'knowers' and 'listeners' in the second sentence are inverted, presumably erroneously.

*A Rationalizing Explanation of
This Difference (T19)*

T19 (≠ DK) Iamblichus, *Life of Pythagoras*

[87] But those among the Pythagoreans who practice the sciences agree that these [i.e. the 'listeners'] are Pythagoreans, and they themselves say that they are even more so, and that what they say is true. They say that the reason for this difference is the following: [88] Pythagoras came from Ionia and Samos during the tyranny of Polycrates, while Italy was flourishing, and the most distinguished men in the cities became his comrades. But since it was difficult to conduct discussions in terms of sciences and demonstrations with the older men, for they had little time, being occupied as they were by political activities, he spoke with them in a plain manner, as he thought that they would still benefit if they knew what they had to do, even if they did

πράττειν, ὥσπερ καὶ οἱ ἰατρυνόμενοι, οὐ προσακούον-
τες διὰ τί αὐτοῖς ἕκαστα πρακτέον, οὐδὲν ἦττον τυγ-
χάνουσι τῆς ὑγείας· ὅσοις δὲ νεωτέροις ἐνετύγχανε
καὶ δυναμένοις πονεῖν¹ καὶ μαυθάνειν, τοῖς τοιούτοις
δι' ἀποδείξεως καὶ μαθημάτων ἐνετύγχανεν.² αὐτοὶ
μὲν οὖν εἶναι ἀπὸ τούτων, ἐκείνους δὲ ἀπὸ τῶν ἐτέρων.

¹ πονεῖν Rittershusius: ποιεῖν F (et Iambl. Comm. 25,
p. 76.24) ² ἐντυγχάνειν Herwerden

Secrets and Betrayals (T20)

T20 (18.4) Iambl. VP 246–47

[246] τὸν γοῦν πρῶτον ἐκφάναντα τὴν τῆς συμμε-
τρίας καὶ ἀσυμμετρίας φύσιν τοῖς ἀναξίοις μετέχειν
τῶν λόγων οὕτω φασὶν ἀποστυγηθῆναι, ὥς μὴ μόνον
ἐκ τῆς κοινῆς συνουσίας καὶ διαίτης ἐξορισθῆναι,
ἀλλὰ καὶ τάφον αὐτοῦ κατασκευασθῆναι, ὥς δῆτα
ἀποικομένου ἐκ τοῦ μετ' ἀνθρώπων βίου τοῦ ποτε
ἐταίρου γενομένου. [247] οἱ δὲ φασι καὶ τὸ δαιμόνιον
νεμεσῆσαι τοῖς ἐξώφορα τὰ τοῦ Πυθαγόρου ποιη-
σαμένοις· φθαρῆναι γὰρ ὥς ἀσεβήσαντα ἐν θαλάσσῃ
τὸν δηλώσαντα τὴν τοῦ εἰκοσαγώνου σύστασιν
(τοῦτο δ' ἦν δωδεκάεδρον, ἐν τῶν πέντε λεγομένων
στερεῶν σχημάτων) εἰς σφαῖραν ἐκτείνεσθαι. ἔνιοι δὲ
τὸν περὶ τῆς ἀλόγου καὶ τῆς ἀσυμμετρίας ἐξειπόντα
τοῦτο παθεῖν ἔλεξαν.

not know the reason, just as patients still become healthy, even if they are not told why they should do each thing. But with all the younger ones he encountered who were capable of working hard and learning, he conducted discussions in terms of demonstration and the sciences. So they [i.e. the 'knowers'] come from the latter, these [i.e. the 'listeners'] from the former.

Secrets and Betrayals (T20)

T20 (18 A4) Iamblichus, *Life of Pythagoras*

[246] They say that the first man who revealed the nature of commensurability and incommensurability to those who were not worthy to share in these doctrines was so abhorred that not only was he banished from the community and their way of life, but also a tomb was erected for him, since he who had once been their companion had now departed far from the life of men. [247] But others say that the divinity too took vengeance on those who made Pythagoras' doctrines public. For the man who revealed that the figure with twenty angles (that is, the dodecahedron, one of the five figures called solid) could be inscribed within a sphere, died at sea for his sacrilege. And some said that it was the man who had divulged irrationality and incommensurability who suffered this fate.¹

¹ This story is sometimes connected with Hippasus (cf. **HIP-PAS. P2**).

EARLY GREEK PHILOSOPHY IV

Political Vicissitudes (T21–T28)

At Croton (T21–T23)

T21 (15 Mansfeld) Diog. Laert. 8.3

κάκεϊ νόμους θεῖς τοῖς Ἰταλιώταις ἔδοξάσθη σὺν τοῖς
μαθηταῖς, οἱ πρὸς τοὺς τριακοσίους ὄντες ὥκονόμουν
ἄριστα τὰ πολιτικά, ὥστε σχεδὸν ἀριστοκρατίαν εἶ-
ναι τὴν πολιτείαν.

T22 (< 14.13) Porph. VP 4

Τίμαιος δ' ἱστορεῖ [FGrHist 566 F131] τὴν Πυθαγόρου
θυγατέρα καὶ παρθένον οὖσαν ἡγείσθαι τῶν παρ-
θένων ἐν Κρότωνι καὶ γυναῖκα τῶν γυναικῶν.

T23 (< 14.14) Diod. Sic. 12.9.4

[. . .] Πυθαγόρου τοῦ φιλοσόφου συμβουλευσαντος
σώζειν τοὺς ἱκέτας, μετέπεσον ταῖς γνώμας καὶ τὸν
πόλεμον ὑπὲρ τῆς τῶν ἱκετῶν σωτηρίας ἀνείλοντο
[. . .].

PYTHAGORAS b

Political Vicissitudes (T21–T28)
At Croton (T21–T23)

T21 (≠ DK) Diogenes Laertius

And there [scil. in Croton], after he had established laws for the Italians, he became celebrated together with his disciples, who were about three hundred in number and governed the city's affairs excellently, so that the political system was practically a government by the best men (*aristokratia*).

T22 (< 14.13) Porphyry, *Life of Pythagoras*

Timaeus reports that Pythagoras' daughter, when she was a girl, was the head of the girls in Croton, and also, when she was a woman, of the women.

T23 (< 14.14) Diodorus Siculus

[. . .] after Pythagoras the philosopher had advised them [i.e. the Crotonians] to save the suppliants [scil. a group of wealthy refugees whom Sybaris demanded be surrendered to them], they changed their mind and went to war in order to save the suppliants.

Cf. **PYTH. a P25, P46b, c**

EARLY GREEK PHILOSOPHY IV

In the Rest of Italy (T24)

T24 (> 14.12) Porph. VP 21–22

[21] ἄς δ' ἐπιδημήσας Ἰταλία τε καὶ Σικελία κατέλαβε πόλεις δεδουλωμένας ὑπ' ἀλλήλων, τὰς μὲν πολλῶν ἐτῶν τὰς δὲ νεωστί, φρονήματος ἐλευθερίου πλήσας διὰ τῶν ἐφ' ἐκάστης ἀκουστῶν αὐτοῦ ἡλευθέρωσε, Κρότωνα καὶ Σύβαριν καὶ Κατάνην καὶ Ῥήγιον καὶ Ἰμέραν καὶ Ἀκράγαντα καὶ Ταυρομένιον καὶ ἄλλας τινάς, αἷς καὶ νόμους ἔθετο διὰ Χαρώνδα τε τοῦ Καταναίου καὶ Ζαλεύκου τοῦ Λοκροῦ, δι' ὧν ἀξιόζήλωτοι τοῖς περιοίκους ἄχρι πολλοῦ γεγονάσιν. Σίμχος δ' ὁ Κεντοριπίνων¹ τύραννος ἀκούσας αὐτοῦ τὴν τ' ἀρχὴν ἀπέθετο καὶ τῶν χρημάτων τὰ μὲν τῇ ἀδελφῇ τὰ δὲ τοῖς πολίταις ἔδωκεν. [22] προσήλθον δ' αὐτῷ, ὥς φησιν Ἀριστόξενος [Frag. 17 Wehrli], καὶ Λευκανοὶ καὶ Μεσσήπιοι καὶ Πευκέτιοι καὶ Ῥωμαῖοι. ἀνέειλεν δ' ἄρδην στάσιν οὐ μόνον ἀπὸ τῶν γνωρίμων, ἀλλὰ καὶ τῶν ἀπογόνων αὐτῶν ἄχρι πολλῶν γενεῶν καὶ καθόλου ἀπὸ τῶν ἐν Ἰταλία τε καὶ Σικελία πόλεων πασῶν πρὸς τε ἑαυτὰς καὶ πρὸς ἀλλήλας.

¹ Κεντοριπίνων Holstenius: κεντοροπίων mss.

Anti-Pythagorean Revolts (T25–T27)

T25 (cf. 14.16) Iambl. VP 248–49 (< Aristox. Frag. 18 Wehrli)

[248] ἦσαν δέ τινες, οἱ προσεπολέμουν τοῖς ἀνδράσι

PYTHAGORAS b

In the Rest of Italy (T24)

T24 (> 14.12) Porphyry, *Life of Pythagoras*

[21] When he found that the cities he traveled to in Italy and Sicily had been enslaved by one another, the ones for many years, the others recently, he filled them with a spirit of liberty and liberated them thanks to the disciples he had in each of them: Croton, Sybaris, Catania, Rhegium, Himera, Agrigentum, Tauromenium, and certain other ones, to which he also gave laws, by means of Charondas of Catania and Zaleucus of Locri, on account of which they were envied by their neighbors for a long time. When the tyrant Simichus of Centuripe heard him, he renounced his power and gave part of his wealth to his sister and the rest to the citizens. [22] As Aristoxenus says, there came to him Lucanians, Messapians, Peucetians, and Romans. He completely suppressed discord not only among his disciples but also among their descendants for many generations, and in general in all the cities of Italy and Sicily, both internally and among each other.

Anti-Pythagorean Revolts (T25–T27)

T25 (< 14.16) Iamblichus, *Life of Pythagoras*

[248] There were some who waged war against these men

τούτους καὶ ἐπανεστήσαν αὐτοῖς. ὅτι μὲν οὖν ἀπόντος Πυθαγόρου ἐγένετο ἡ ἐπιβουλή, πάντες συνομολογούσι, διαφέρονται δὲ περὶ τῆς τότε ἀποδημίας, οἱ μὲν πρὸς Φερεκύδην τὸν Σύριον, οἱ δὲ εἰς Μεταπόντιον λέγοντες ἀποδεδημηκέναι τὸν Πυθαγόραν. αἱ δὲ αἰτίαι τῆς ἐπιβουλῆς πλείονες λέγονται, μία μὲν ὑπὸ τῶν Κυλωνείων λεγομένων ἀνδρῶν τοιαύδε γενομένη. Κύλων, ἀνὴρ Κροτωνιάτης, γένει μὲν καὶ δόξῃ καὶ πλούτῳ πρωτεύων τῶν πολιτῶν, ἄλλως δὲ χαλεπὸς τις καὶ βίαιος καὶ θορυβώδης καὶ τυραννικὸς τὸ ἦθος, πᾶσαν προθυμίαν παρασχόμενος πρὸς τὸ κοινωνῆσαι τοῦ Πυθαγορείου βίου καὶ προσελθὼν πρὸς αὐτὸν τὸν Πυθαγόραν ἤδη πρεσβύτην ὄντα, ἀπεδοκιμάσθη διὰ τὰς προειρημένας αἰτίας. [249] γενομένου δὲ τούτου πόλεμον ἰσχυρὸν ἤρατο καὶ αὐτὸς καὶ οἱ φίλοι αὐτοῦ πρὸς αὐτόν τε τὸν Πυθαγόραν καὶ τοὺς ἐταίρους, καὶ οὕτω σφοδρά τις ἐγένετο καὶ ἄκρατος ἡ φιλοτιμία αὐτοῦ τε τοῦ Κύλωνος καὶ τῶν μετ' ἐκείνου τεταγμένων, ὥστε διατείνειν μέχρι τῶν τελευταίων Πυθαγορείων. ὁ μὲν οὖν Πυθαγόρας διὰ ταύτην τὴν αἰτίαν ἀπῆλθεν εἰς τὸ Μεταπόντιον, κακεῖ λέγεται καταστρέψαι τὸν βίον, οἱ δὲ Κυλώνειοι λεγόμενοι διετέλουν πρὸς τοὺς Πυθαγορείους στασιάζοντες καὶ πᾶσαν ἐνδεικνύμενοι δυσμένειαν. ἀλλ' ὅμως ἐπεκράτει μέχρι τινὸς ἡ τῶν Πυθαγορείων καλοκαγαθία καὶ ἡ τῶν πόλεων αὐτῶν βούλησις, ὥστε ὑπ' ἐκείνων οἰκονομεῖσθαι βούλεσθαι τὰ περὶ τὰς πολιτείας. τέλος δὲ εἰς τοσοῦτον ἐπεβούλευσαν¹ τοῖς ἀνδράσιν, ὥστε ἐν τῇ

[i.e. the Pythagoreans] and rebelled against them. Everyone agrees that the conspiracy took place while Pythagoras was absent, but they disagree about the details of his voyage at that time. Some say that Pythagoras had gone to Pherecydes of Syros, others to Metapontum. As for the causes of the conspiracy, there are a number of different reports. According to one of them, it was brought about by the men called Cylonians: Cylon, a man of Croton, one of the first citizens by birth, reputation, and wealth, but otherwise of a difficult character, violent, turbulent, and tyrannical, had conceived a great desire to participate in the Pythagorean way of life; he had come to see Pythagoras himself, who was already old, but he had been rejected for the reasons I have just mentioned. [249] When this happened, he and his friends began a violent war against Pythagoras and his companions, and the rivalry of Cylon and his allies was so fierce and absolute that it extended to the very last Pythagoreans. This is the reason why Pythagoras left for Metapontum, and he is said to have died there. But the so-called Cylonians continued to rebel against the Pythagoreans and to manifest a total hostility against them. But all the same, for a certain time the Pythagoreans' virtue and valor and the will of the cities themselves had the upper hand, so that they wished to be governed by them. But in the end they went so far in their conspiracy against these men that they set on fire the

¹ ἐπεβούλευσαν Kiessling: ἐπεβούλευσε ms.

Μίλωνος οἰκία ἐν Κρότωνι συνεδρευόντων τῶν Πυθαγορείων καὶ βουλευομένων περὶ πολιτικῶν² πραγμάτων ὑφάψαντες τὴν οἰκίαν κατέκαυσαν τοὺς ἄνδρας, πλὴν δυεῖν, Ἀρχίππου τε καὶ Λύσιδος.

² πολιτικῶν Mahne: πολεμικῶν ms.

T26 (< 14.16) Polyb. 2.39

καθ' οὓς γὰρ καιροὺς ἐν τοῖς κατὰ τὴν Ἰταλίαν τόποις κατὰ τὴν Μεγάλην Ἑλλάδα τότε προσαγορευομένην ἐνεπρήσθη τὰ συνέδρια τῶν Πυθαγορείων, μετὰ ταῦτα γενομένου κινήματος ὀλοσχεροῦς περὶ τὰς πολιτείας, ὅπερ εἰκός, ὥς ἂν τῶν πρώτων ἀνδρῶν ἐξ ἐκάστης πόλεως οὕτω παραλόγως διαφθαρέντων, συνέβη τὰς κατ' ἐκείνους τοὺς τόπους Ἑλληνικὰς πόλεις ἀναπλησθῆναι φόνου καὶ στάσεως καὶ παντοδαπῆς ταραχῆς.

T27 (> 14.16) Porph. VP 56

Δικαίαιρχος δὲ [Frag. 34 Wehrli] καὶ οἱ ἀκριβέστεροι καὶ τὸν Πυθαγόραν φασὶν παρεῖναι τῇ ἐπιβουλῇ· Φερεκύδην γὰρ πρὸ τῆς ἐκ Σάμου ἀπάρσεως τελευτήσας.

The Dispersal of the Pythagoreans (T28)

T28 (< 14.16) Iambl. VP 250–51

[. . .] [250] γενομένου δὲ τούτου καὶ λόγον οὐδένα ποι-

house of Milon in Croton, where the Pythagoreans had gathered to deliberate about political matters, and burned alive all the men except for two, Archippus and Lysis.

T26 (< 14.16) Polybius, *Histories*

At that time [ca. 455], in the part of Italy then called Magna Graecia the meeting places of the Pythagoreans were burned down, after which there was a general upheaval in the political regimes, as was to be expected, given that the first men of each city had been killed so unexpectedly; and it came about that the Greek cities in those parts were filled with murder, civil strife, and all kinds of turmoil.

T27 (> 14.16) Porphyry, *Life of Pythagoras*

Dicaearchus and the more precise authors say that Pythagoras too was present during the conspiracy. For Phercydes had already died before his departure from Samos [cf. **PHER. P15**].

The Dispersal of the Pythagoreans (T28)

T28 (< 14.16), Iamblichus, *Life of Pythagoras*

[...] [250] After this happened [scil. the burning of Milon's

ησαμένων τῶν πόλεων περὶ τοῦ συμβάντος πάθους ἐπαύσαντο τῆς ἐπιμελείας οἱ Πυθαγόρειοι. συνέβη δὲ τοῦτο δι' ἀμφοτέρας τὰς αἰτίας, διὰ τε τὴν ὀλιγωρίαν τῶν πόλεων (τοῦ τοιούτου γὰρ καὶ τηλικούτου γενομένου πάθους οὐδεμίαν ἐπιστροφὴν ἐποιήσαντο), διὰ τε τὴν ἀπώλειαν τῶν ἡγεμονικωτάτων ἀνδρῶν. τῶν δὲ δύο τῶν περισωθέντων, ἀμφοτέρων Ταραντίνων ὄντων, ὁ μὲν Ἄρχιππος ἀνεχώρησεν εἰς Τάραντα, ὁ δὲ Λύσις μισήσας τὴν ὀλιγωρίαν ἀπῆρεν εἰς τὴν Ἑλλάδα καὶ ἐν Ἀχαΐᾳ διέτριβε τῇ Πελοποννησιακῇ, ἔπειτα εἰς Θήβας μετῴκησεν σπουδῆς τινος γενομένης, οὐπὲρ ἐγένετο Ἐπαμινώνδας ἀκροατὴς καὶ πατέρα τὸν Λύσιν ἐκάλεσεν. ὧδε καὶ τὸν βίον κατέστρεψεν. [251] οἱ δὲ λοιποὶ τῶν Πυθαγορείων ἀπέστησαν τῆς Ἰταλίας, πλὴν Ἀρχύτον¹ τοῦ Ταραντίνου.² ἀθροισθέντες δὲ εἰς τὸ Ῥήγιον ἐκεῖ διέτριβον μετ' ἀλλήλων. προϊόντος δὲ τοῦ χρόνου καὶ τῶν πολιτευμάτων ἐπὶ τὸ χεῖρον προβαίνοντων < . . >³ ἦσαν δὲ οἱ σπουδαιότατοι Φάντων τε καὶ Ἐχεκράτης καὶ Πολύμναστος καὶ Διοκλῆς, Φλιάσιοι, Ξενοφίλος δὲ Χαλκιδεὺς τῶν ἀπὸ Θράκης Χαλκιδέων. ἐφύλαξαν μὲν οὖν τὰ ἐξ ἀρχῆς ἦθη καὶ τὰ μαθήματα καίτοι ἐκλειπούσης τῆς αἰρέσεως, ἕως⁴ εὐγενῶς ἠφανίσθησαν. ταῦτα μὲν οὖν Ἀριστόξενος διηγείται [Frag. 18 Wehrli] [. . .].

house], the Pythagoreans stopped taking care of the cities, which took no account of the calamity that had occurred. This happened for two reasons: the neglect on the part of the cities (for they paid no attention to a calamity of this kind and of such magnitude) and the annihilation of the most important leaders. Of the two survivors, both of them from Tarentum, Archippus returned to Tarentum, while Lysis, filled with hatred for this neglect, left for Greece and spent some time in Achaea in the Peloponnese and then moved to Thebes, where a certain enthusiasm for him had developed. Here Epaminondas became his student and called Lysis his father; and here he died. [251] The remaining Pythagoreans left Italy, except for Archytas¹ of Tarentum. They gathered at Rhegium and lived together there. As time passed and the political regimes became worse < . . . >. The most zealous ones were Phanton, Echecrates, Polymnastus, and Diocles, all from Phlius; Xenophilus of Chalcidia, among the Chalcidians from Thrace. They preserved the original mores and knowledge even though the school had come to an end, until they passed away nobly. This is what Aristoxenus reports.

¹ Iamblichus mentions at §104 an 'older Archytas' who, he says, was a disciple of Pythagoras at the same time as Empedocles [cf. **ARCHY. P3**]. 'Archytas' here is sometimes corrected to 'Archippus.'

¹ Ἀρχύτου] Ἀρχίππου Fr. Beckmann ² ἀπέστησαν
 . . . Ταραντίνου transp. post προβαινόντων et δὲ post ἀθροισθέντες del. Rose ³ lac. indic. Wytttenbach ⁴ ἕως
 Küster: ὥς F

*The Pythagoreans in the Course of
Time (T29–T36)*

Longevity of the School (T29)

T29 (< 14.10) Diog. Laert. 8.45–46

[. . .] καὶ αὐτοῦ τὸ σύστημα διέμεινε μέχρι γενεῶν
ἐννέα ἢ καὶ δέκα· τελευταῖοι γὰρ ἐγένοντο τῶν Πυθα-
γορείων, οὓς καὶ Ἀριστόξενος εἶδε, Ξενόφίλος τε ὁ
Χαλκιδεὺς ἀπὸ Θράκης καὶ Φάντων ὁ Φλιάσιος καὶ
Ἐχεκράτης καὶ Διοκλῆς καὶ Πολύμναστος, Φλιάσιοι
καὶ αὐτοί. ἦσαν δὲ ἀκροαταὶ Φιλολάου καὶ Εὐρύτου
τῶν Ταραντίνων.

*The Catalog of Male and Female Pythagoreans
Transmitted by Iamblichus (T30)*

T30 (58A.) Iambl. VP 267

τῶν δὲ συμπάντων Πυθαγορείων τοὺς μὲν ἀγνώτας τε
καὶ ἀνωνύμους τινὰς πολλοὺς εἰκὸς γεγονέναι, τῶν δὲ
γνωριζομένων ἐστὶ τάδε τὰ ὀνόματα.

[1] Κροτωνιάται Ἰππόστρατος, Δύμας, Αἴγων, Αἴμων,
Σύλλος, Κλεοσθένης, Ἀγέλας, Ἐπίσυλος, Φυκιάδας,

¹ This catalog of male (218 names) and female (17 names) Pythagoreans, classified by city of origin (29), probably goes back to Aristoxenus of Tarentum. The Pythagorean identity of at least some of them is doubtful or is the result of invented filiations (this is the case of Parmenides, for example); inversely, we know of

*The Pythagoreans in the Course of
Time (T29–T36)
Longevity of the School (T29)*

T29 (< 14.10) Diogenes Laertius

[. . .] Its [i.e. the school's] organization lasted nine or ten generations. For the last Pythagoreans, whom Aristoxenus saw, were Xenophilus of Chalcis in Thrace, Phanton of Phlius, Echecrates, Diocles, and Polymnastus, these too of Phlius. They were students of Philolaus and of Eurytus of Tarentum.

*The Catalog of Male and Female Pythagoreans
Transmitted by Iamblichus (T30)¹*

T30 (58A.) Iamblichus, *Life of Pythagoras*

Of all the Pythagoreans, it is only to be expected that many are unknown and anonymous, but here are the names of those that are known:

[1] From Croton: Hippostratus, Dymas, Aegon, Haemon, Syllus, Cleosthenes, Agelas, Episylus, Phyciadas, **Ecphan-**

certain older Pythagoreans who are not included in the catalog (for example, Ameinias or Telauges, Pythagoras' son and Empedocles' alleged teacher). Many of these names are otherwise unknown. We have printed in boldface in the translation the names that appear elsewhere (in one way or another) in our edition and some that appear in Diels-Kranz's but not in ours (cf. the General Introduction to Chapters 10–18).

Ἐκφαντος, Τίμαιος, Βούθος, Ἐρατος, Ἰταναῖος, Ῥόδιππος, Βρύας, Εὐανδρος, Μυλλίας, Ἀντιμέδων, Ἀγέας, Λεόφρων, Ἀγύλος, Ὀνατας, Ἴπποσθένης, Κλεόφρων, Ἀλκμαίων, Δαμοκλῆς, Μίλων, Μένων.

[2] Μεταποντῖνοι Βροντῖνος, Παρμίσκος, Ὀρεστάδας, Λέων, Δαμάρμενος, Αἰνέας, Χειλᾶς, Μελησίας, Ἀριστέας, Λαφάων, Εὐανδρος, Ἀγησίδαμος, Ξενοκάδης, Εὐρύφημος, Ἀριστομένης, Ἀγήσαρχος, Ἀλκίας, Ξενοφάντης, Θρασέας, Εὐρυτος, Ἐπίφρων, Εἰρίσκος, Μεγιστίας, Λεωκύδης, Θρασυμήδης, Εὐφημος, Προκλῆς, Ἀντιμένης, Λάκριτος, Δαμοτάγης, Πύρρων, Ῥηξίβιος, Ἀλώπεκος, Ἀστύλος, Λακύδας, Ἀνίοχος, Λακράτης, Γλυκῖνος.

[3] Ἀκραγαντῖνος Ἐμπεδοκλῆς.

[4] Ἐλεάτης Παρμενίδης.

[5] Ταραντῖνοι Φιλόλαος, Εὐρυτος, Ἀρχύτας, Θεόδωρος, Ἀρίστιππος, Λύκων, Ἔστιαῖος, Πολέμαρχος, Ἀστέας, Καινίας, Κλέων, Εὐρυμέδων, Ἀρκέας, Κλειναγόρας, Ἀρχιππος, Ζώπυρος, Εὐθύνος, Δικαίαιρχος, Φιλωνίδης, Φροντίδας, Λῦσις, Λυσίβιος, Δεινοκράτης, Ἐχεκράτης, Πακτίων, Ἀκουσιλάδας, Ἴκκος, Πεισικράτης, Κλεάρατος, Λεοντεύς, Φρύνιχος, Σιμιχίας, Ἀριστοκλείδας, Κλεινίας, Ἀβροτέλης, Πεισίρροδος, Βρύας, Ἐλανδρος, Ἀρχέμαχος, Μιμνόμαχος, Ἀκμονίδας, Δικᾶς, Καροφαντίδας.

[6] Συβαρίται Μέτωπος, Ἴππασος, Πρόξενος, Εὐάνωρ, Λεάναξ, Μενέστωρ, Διοκλῆς, Ἐμπεδος, Τιμάσιος, Πολεμαῖος, Ἐνδιος, Τυρσηνός.

tus, Timaeus, Bouthus, Eratus, Itanaeus, Rhodippus, Bryas, Euandrus, Myllias, Antimedon, Ageas, Leophron, Agylus, Onatas, Hipposthenes, Cleophron, **Alcmaeon**, Damocles, **Milon**, Menon.

[2] From Metapontum: **Brontinus**, Parmiscus, Orestadas, Leon, Damarmenus, Aeneas, Cheilas, Melesias, Aristeas, Laphaon, Euandrus, Agesidamus, Xenocades, Euryphemus, Aristomenes, Agesarchus, Alcias, Xenophantes, Thraseas, **Eurytus**, Epiphron, Eiriscus, Megistias, Leocydes, Thrasymedes, Euphemus, Procles, Antimenes, Lacritus, Damotages, Pyrrhon, Rhexibius, Alopecus, Astylus, Lacydas, Haniochus, Lacrates, Glykinus.

[3] From Agrigentum: **Empedocles**.

[4] From Elea: **Parmenides**.

[5] From Tarentum: **Philolaus**, **Eurytus**, **Archytas**, Theodorus, Aristippus, Lycon, **Hestiaeus**, Polemarchus, As teas, Caenias, Cleon, Eurymedon, Arceas, Cleinagoras, Archippus, **Zopyrus**, Euthynus, Dicaearchus, Philonides, Phrontidas, **Lysis**, Lysibios, Deinocrates, **Echecrates**, Paction, Acousiladas, **Iccus**, Peisicrates, Clearatus, Leon teus, Phrynichus, Simichias, Aristocleidas, Cleinias, Habroteles, Peisirrhodus, Bryas, Helandrus, Archemachus, Mimnomachus, Acmonidas, Dicas, Carophantidas.

[6] From Sybaris: Metopus, **Hippasus**, Proxenus, Euanor, Leanax, **Menestor**, Diocles, Empedus, Timasius, Polemaeus, Endius, Tyrsenus.

- [7] Καρχηδόνιοι Μιλτιάδης, Ἄνθην, Ὀδῖος, Λεώκριτος.
- [8] Πάριοι Αἰήτιος, Φαινεκλῆς, Δεξιθέος, Ἀλκίμαχος, Δείναρχος, Μέτων, Τίμαιος, Τιμησιάναξ, Εὐμοῖρος, Θυμαρίδας.
- [9] Λοκροὶ Γύττιος, Ξένων, Φιλόδαμος, Εὐέτης, Εὐδίκος, Σθενωνίδας, Σωσίστρατος, Εὐθύνοῦς, Ζάλευκος, Τιμάρης.
- [10] Ποσειδωνιάται Ἀθάμας, Σῆμος, Πρόξενος, Κρανάος, Μύης, Βαθύλαος, Φαίδων.
- [11] Λευκανοὶ Ὅκελλος καὶ Ὅκιλλος ἀδελφοί, Ἀρέσανδρος, Κέραμβος.
- [12] Δαρδανεύς Μαλίων.
- [13] Ἀργεῖοι Ἴππομέδων, Τιμοσθένης, Εὐέλθων, Θρασύδαμος, Κρίτων, Πολύκτωρ.
- [14] Λάκωνες Αὐτοχαρίδας, Κλεάνωρ, Εὐρυκράτης.
- [15] Ὑπερβόρειος Ἄβαρις.
- [16] Ῥηγῖνοι Ἀριστείδης, Δημοσθένης, Ἀριστοκράτης, Φύτιος, Ἐλικάων, Μνησίβουλος, Ἴππαρχίδης, Εὐθοσίων, Εὐθυκλῆς, Ὀψιμος, Κάλαις, Σελινούντιος.
- [17] Συρακούσιοι Λεπτίνης, Φιντίας, Δάμων.
- [18] Σάμιοι Μέλισσος, Λάκων, Ἀρχιππος, Ἐλώριππος, Ἐλωρις, Ἴππων.
- [19] Καυλωνιάται Καλλίμβροτος, Δίκων, Νάστας, Δρύμων, Ξενέας.
- [20] Φλιάσιοι Διοκλῆς, Ἐχεκράτης, Πολύμναστος, Φάντων.

PYTHAGORAS b

- [7] From Carthage: Miltiades, Anthen, Hodius, Leocritus.
- [8] From Paros: Aetius, Phaenecles, Dexitheus, Alcimachus, Deinarchus, Meton, **Timaeus**, Timesianax, Eumoirus, Thumaridas.
- [9] From Locri: Gytius, Xenon, Philodamus, Euetes, Eudicus, Sthenonidas, Sosistratus, Euthynous, **Zaleucus**, Timares.
- [10] From Poseidonia: Athamas, Simus, Proxenus, Cranaus, Mues, Bathylaus, **Phaedon**.
- [11] From Lucania: **Occelus** and Occilus, brothers; Arendrus, Cerambus.
- [12] From Dardania: Malion.
- [13] From Argos: Hippomedon, Timosthenes, Euelthon, Thrasydamus, Criton, Polyctor.
- [14] From Laconia: Autocharidas, Cleanor, Eurycrates.
- [15] From Hyperborea: **Abaris**.
- [16] From Rhegium: Aristides, Demosthenes, Aristocrates, Phytius, Helicaon, Mnesiboulus, Hipparchides, Euthosion, Euthycles, Opsimus, Calais, Selinountius.
- [17] From Syracuse: Leptines, **Phintias**, **Damon**.
- [18] From Samos: **Melissus**, Lacon, Archippus, Helorippus, Heloris, **Hippo**.
- [19] From Caulonia: Callimbrotus, Dicon, Nastas, Drymon, Xeneas.
- [20] From Phlius: **Diocles**, **Echecrates**, **Polymnastus**, **Phanton**.

[21] Σικυνώνιοι Πολιάδης, Δήμων, Στράτιος, Σωσθένης.

[22] Κυρηναῖοι Πρώρος, Μελάνιππος, Ἀριστάγγελος, Θεόδωρος.

[23] Κυζίκηνοὶ Πυθόδωρος, Ἴπποσθένης, Βούθηρος, Ξενόφιλος.

[24] Καταναῖοι Χαρώνδας, Λυσιάδης.

[25] Κορίνθιος Χρύσιππος.

[26] Τυρρηνὸς Ναυσίθοος.

[27] Ἀθηναῖος Νεόκριτος.

[28] Ποντικὸς Λύραμνος.

οἱ πάντες σιη'.

[29] Πυθαγορίδες δὲ γυναῖκες αἱ ἐπιφανέσταται· Τιμύχα γυνή Μυλλία τοῦ Κροτωνιάτου, Φιλτὺς θυγάτηρ Θεόφριος τοῦ Κροτωνιάτου, Βυνδάκου ἀδελφῇ, Ὀκελλῶ καὶ Ἐκκελῶ <ἀδελφαὶ Ὀκκέλω καὶ Ὀκκίλω>¹ τῶν Λευκανῶν, Χειλωνίς θυγάτηρ Χείλωνος τοῦ Λακεδαιμονίου, Κρατησίκλεια Λάκαινα γυνή Κλεάνορος τοῦ Λακεδαιμονίου, Θεανὼ γυνή τοῦ Μεταποντίνου Βροτίνου, Μυῖα γυνή Μίλωνος τοῦ Κροτωνιάτου, Λασθένεια Ἀρκάδισσα, Ἀβροτέλεια Ἀβροτέλους θυγάτηρ τοῦ Ταραντίνου, Ἐχεκράτεια Φλιασία, Τυρσηνὶς Συβαρίτις, Πεισιρρόδη Ταραντινὶς, Θεάδουσα Λάκαινα, Βοιῶ Ἀργεία, Βαβέλυνκα Ἀργεία, Κλεαίχμα ἀδελφὴ Αὐτοχαρίδα τοῦ Λάκωνος.

αἱ πᾶσαι ιζ'.

- [21] From Sycion: Poliades, Demon, Stratius, Sosthenes.
 [22] From Cyrene: Prorus, Melanippus, Aristangelus, Theodorus.
 [23] From Cyzicus: Pythodorus, Hipposthenes, Boutherus, **Xenophilus**.
 [24] From Catania: **Charondas**, Lysiades.
 [25] From Corinth: Chrysippus.
 [26] From Etruria: Nausithous.
 [27] From Athens: Neocritus.
 [28] From Pontus: Lynamnus.

All in all 218.

[29] The most notable female Pythagoreans: Timycha, wife of Myllias of Croton; Philtys, daughter of Theophris of Croton, sister of Byndacus, Occelo and Eccelo, <sisters of Occelus and Occilus> of Lucania; Cheilonis, daughter of Cheilon of Sparta; Cratesicleia of Sparta, wife of Cleonor of Sparta; **Theano**, wife of **Brotinus** of Metapontum; Myia, wife of **Milon** of Croton, Lastheneia of Arcadia; Habroteleia, daughter of Habroteles of Tarentum; Echecrateia of Phlius, Tyrsênis of Sybaris, Peisirrhodê of Tarentum, Theadousa of Sparta, Boeo of Argos, Babelyca of Argos; Cleaechma, sister of Autocharidas of Laconia.
 All in all 17.

¹ nomina persaepe corrupta in ms., corr. edd.
 Deubner

1 suppl.

EARLY GREEK PHILOSOPHY IV

Some Other Names and Reports (T31–T36)

Cercops (T31)

T31 (15) Cic. *Nat. deor.* 1.38.107

Orpheum poetam docet Aristoteles [Frag. 7 Rose] numquam fuisse, et hoc Orphicum carmen Pythagorei ferunt cuiusdam fuisse Cercopis.¹

¹ nomen varie corruptum in mss., corr. Victorius

Democedes of Croton (T32–T33)

T32 (< 19.1) Hdt. 3.125

[. . .] Δημοκήδεα τὸν Καλλιφῶντος Κροτωνιήτην ἄνδρα, ἱητρόν τε ἔόντα καὶ τὴν τέχνην ἀσκέοντα ἄριστα τῶν κατ' ἐωυτόν.

T33 (< 18 A5) Iambl. *VP* 257

[. . .] τῶν Πυθαγορείων Ἀλκιμάχου καὶ Δεινάρχου καὶ Μέτωνος καὶ Δημοκίδους [. . .].

Brontinus (or Brotinus)

See **PYTH. a P10; HIPPAS. P3; ALCM. D4**

PYTHAGORAS b

Some Other Names and Reports (T31–T36) *Cercops (T31)*

T31 (15) Cicero, *On the Nature of the Gods*

Aristotle reports that a poet Orpheus never existed and they say that this Orphic poem is the work of a certain Pythagorean named Cercops.

Democedes of Croton (T32–T33)

T32 (< 19.1) Herodotus, *Histories*

[. . .] Democedes, son of Calliphon, a man of Croton, a doctor and the most expert practitioner of that art of his time.

T33 (< 18 A5) Iamblichus, *Life of Pythagoras*

[. . .] the Pythagoreans Alcimachus, Deinarchus, Meton, Democedes¹ [· · ·].

¹ Herodotus 3.137 reports that Democedes was married to the daughter of the Pythagorean athlete Milon of Croton.

Brontinus (or Brotinus)

See **PYTH. a P10; HIPPAS. P3; ALCM. D4**

Iccus of Tarentum (T34)

T34 (< 25.1) Plat. *Prot.* 316d

[IIP.] [. . .] ἐνίους δέ τινας ἥσθημαι καὶ γυμναστικήν,
οἶον Ἰκκος τε ὁ Ταραντῖνος [. . .].

Ameinias (T35)

T35 (27) Diog. Laert. 9.21

ἐκουνώνησε δὲ καὶ Ἀμεινία Διοχάρτα¹ τῷ Πυθαγο-
ρικῷ, ὡς ἔφη Σωτίων [Frag. 27 Wehrli], ἀνδρὶ πέννητι
μέν, καλῷ δὲ καὶ ἀγαθῷ.

¹ Διοχάρτα Bechtel: διοχαίτη BP: καὶ διοχέτη F: Διοχαίτα
Diels: alii alia

Telauges

See **PYTH. a P10; HIPPAS. P3; EMP. P8, P11, P12**

Lysis (T36)

T36 (< 46.3) Diog. Laert. 8.7

[. . .] Λύσιδος [. . .] τοῦ Ταραντίνου Πυθαγορικοῦ, φυ-
γόντος εἰς Θήβας καὶ Ἐπαμεινώνδα καθηγησαμένου
[. . .].

PYTHAGORAS b

Iccus of Tarentum (T34)

T34 (< 25.1) Plato, *Protagoras*

[Protagoras:] [. . .] certain ones [scil. of the ancient ‘sophists,’ who conceal their art under a different art], I have heard, under gymnastics too, like Iccus of Tarentum [. . .].

Ameinias (T35)

T35 (27) Diogenes Laertius

As Sotion says, he [i.e. Parmenides] also spent time with Ameinias the Pythagorean, son of Diochartes, a poor man but of a noble character (*kalos kagathos*) [cf. **PARM. P8**].

Telauges

See **PYTH. a P10; HIPPAS. P3; EMP. P8, P11, P12**

Lysis (T36)

T36 (< 46.3) Diogenes Laertius

[. . .] Lysis of Tarentum, a Pythagorean, who escaped to Thebes and was the teacher of Epaminondas [. . .].¹

¹ Given that the Theban general Epaminondas was born around 410, this presupposes either a late date for Lysis or a very long life.

See also **PYTHS. R45a; cf. R54**

PYTHAGORAS c
DOCTRINES ATTRIBUTED BY NAME;
SAYINGS AND PRECEPTS

*Did Pythagoras Write Anything?*² (D1–D3)

D1 Diog. Laert.

a (≠ DK) 1.16

καὶ οἱ μὲν αὐτῶν κατέλιπον ὑπομνήματα, οἱ δ' ὅλως
οὐ συνέγραψαν, ὥσπερ [. . .] κατὰ τινὰς Πυθαγόρας
[. . .].

b (< 14.19) 8.6–7

ἔνιοι μὲν οὖν¹ Πυθαγόραν μὴδὲ ἐν καταλιπεῖν σύγ-
γραμμά φασιν διαπεσόντες.² Ἡράκλειτος γοῦν ὁ φυ-
σικὸς μονονουχὶ κέκραγε καὶ φησι: [. . . = **HER.**
D126]. οὕτω δ' εἶπεν, ἐπειδήπερ ἐναρχόμενος ὁ Πυθα-
γόρας τοῦ Φυσικοῦ συγγράμματος λέγει ὧδε: [. . . =
PYTHS. R45b].

¹ οὖν P: om. BF ² διαπεσόντες Reiske: διαπέζοντες B:
διαπαίζοντες PF: παίζοντες Diels

PYTHAGORAS c
DOCTRINES ATTRIBUTED BY NAME;
SAYINGS AND PRECEPTS

Did Pythagoras Write Anything? (D1–D3)¹

¹ The data make a negative answer likelier, but the opposite opinion has also had its defenders.

D1 Diogenes Laertius

a (≠ DK)

Some of them [i.e. philosophers] left behind treatises, while others did not write anything at all, like [. . .], according to some people Pythagoras, [. . .].

b (< 14.19)

Some people claim erroneously that Pythagoras did not leave behind even one written treatise. In any case Heracclitus, the natural philosopher, almost shouts when he says, [. . . = **HER. D26**]. He said this because Pythagoras at the beginning of his treatise *On Nature* said, [. . . = **PYTHS. R45b**].

c (< 36 B2) 8.8

Ἵων δὲ ὁ Χίλος ἐν τοῖς Τριαγμοῖς φησιν αὐτὸν ἔνια ποιήσαντα ἀνενεγκεῖν εἰς Ὀρφέα.

d (≠DK) 8.15

μέχρι τε Φιλολάου οὐκ ἦν τι γινῶναι Πυθαγόρειον δόγμα· οὗτος δὲ μόνος ἐξήνεγκε τὰ διαβόητα τρία βιβλία, ἃ Πλάτων ἐπέστειλεν ἑκατὸν μνῶν ὠνηθῆναι.¹

¹ ἐωνηθῆναι mss., corr. Cobet

D2 (46.2) Porph. VP 57

οὔτε γὰρ τοῦ¹ Πυθαγόρου σύγγραμμα ἦν, οἳ τ' ἐκφυγόντες Λύσις τε καὶ Ἀρχιππος καὶ ὅσοι ἀποδημοῦντες ἐτύγχανον, ὀλίγα διέσφωσαν ζώπυρα τῆς φιλοσοφίας ἀμυδρά τε καὶ δυσθήρατα.

¹ τοῦ mss.: αὐτοῦ Rohde

D3 (< 44 B22) Claud. Mam. *Stat. an.* 2.3, p. 105.5–6

Pythagorae igitur, quia nihil ipse scriptitaverat,¹ a posteris quaerenda sententia est [. . . = **PYTHS. R49**].

¹ scriptitaverat *aut* -veret mss.: scriptaverit Schott

c (< 36 B2)

Ion of Chios in his *Triagmoi* says that he [i.e. Pythagoras] composed some poems and attributed them to Orpheus.

d (\neq DK)

Until the time of Philolaus it was not possible to know anything about Pythagorean doctrine; it was he alone who published those celebrated three books which Plato ordered to be bought for a hundred minas.

D2 (46.2) Porphyry, *Life of Pythagoras*

For there was no writing by Pythagoras himself, and Lysis and Archippus, who had escaped [scil. after the Pythagorean residence at Croton was burned down], as well as all those who went into exile, preserved from his philosophy nothing more than a few embers that were faint and hard to understand.

D3 (< 44 B22) Claudianus Mamertus, *On the State of the Soul*

Pythagoras' opinion, since he himself wrote nothing, must be sought from his successors [. . .].

EARLY GREEK PHILOSOPHY IV

Traces of Doctrines Attributable to Pythagoras (D4–D8) Immortality, Transmigration, Eschatology (D4–D5)

D4 (14.1) Hdt. 2.123

πρῶτοι δὲ καὶ τόνδε τὸν λόγον Αἰγύπτιοί εἰσι οἱ εἰ-
πόντες, ὡς ἀνθρώπου ψυχὴ ἀθάνατός ἐστι, τοῦ σώμα-
τος δὲ καταφθίνοντος ἐς ἄλλο ζῶον αἰεὶ γινόμενον
ἐσδύεται· ἐπεὰν δὲ πάντα περιέλθῃ τὰ χερσαῖα καὶ τὰ
θαλάσσια καὶ τὰ πετεινά, αὗτις ἐς ἀνθρώπου σῶμα
γινόμενον ἐσδύνειν· τὴν περιήλυσιν δὲ αὐτῇ γίνεσθαι
ἐν τρισχλίοισι ἔτεσι. τούτῳ τῷ λόγῳ εἰσὶ οἱ Ἑλ-
λήνων ἐχρήσαντο, οἱ μὲν πρότερον, οἱ δὲ ὕστερον, ὡς
ιδίῳ ἑωυτῶν ἔοντι· τῶν ἐγὼ εἰδὼς τὰ οὐνόματα οὐ
γράφω.

D5 (< 14.8a) Porph. VP 19

[. . .] μάλιστα μέντοι γνώριμα παρὰ πᾶσιν ἐγένετο
πρῶτον μὲν ὡς ἀθάνατον εἶναι φησι τὴν ψυχὴν, εἴτα
μεταβάλλουσιν εἰς ἄλλα γένη ζῶων, πρὸς δὲ τούτοις
ὅτι κατὰ περιόδους τινὰς τὰ γινόμενά¹ ποτε πάλιν γί-
νεται, νέον δ' οὐδὲν ἀπλῶς ἔστι, καὶ ὅτι πάντα τὰ

¹ γενόμενά Westermann

PYTHAGORAS c

Traces of Doctrines Attributable to Pythagoras (D4–D8)¹ Immortality, Transmigration, Eschatology (D4–D5)

¹ Any attribution to Pythagoras himself is uncertain. We present here *exempli gratia* some of the doctrines that have most frequently been considered original, or possibly so.

D4 (14.1) Herodotus, *Histories*

The Egyptians are the first to have said the following too: that a human's soul is immortal, and when the body has been destroyed it enters each time into another living being that is being born; and after it has gone through all the animals, terrestrial, marine, and winged, it enters once again into a human body that is being born (it completes this cycle in three thousand years). There are some Greeks who have professed this doctrine, some of them earlier, others later, as though it were their own. I know their names but I do not write them down.¹

¹ Herodotus is usually thought to be referring to Pythagoras. But since he refers to both earlier and later Greeks, it is not impossible that he is also alluding to Empedocles [cf. **EMP. D13–D20**].

D5 (< 14.8a) Porphyry, *Life of Pythagoras*

[. . .] What has become best known of all is first that he said that the soul is immortal; then that it passes into other species of animals; and also that what is born is born again sometime after determinate periods of time; and that there is absolutely nothing new; and that it must be

EARLY GREEK PHILOSOPHY IV

γινόμενα ἔμψυχα ὁμογενῇ δεῖ² νομίζειν. φαίνεται³ γὰρ εἰς τὴν Ἑλλάδα τὰ δόγματα πρῶτος κομίσαι ταῦτα Πυθαγόρας.

² δὲ mss., corr. Holste

³ φέρεται Nauck

Numbers: Justice Is a Square (D6)

D6 (58B.4) Ps.-Arist. *MM* 1.1 1182a11–14

πρῶτος μὲν οὖν ἐνεχέρησεν Πυθαγόρας περὶ ἀρετῆς εἰπεῖν, οὐκ ὀρθῶς δέ τὰς γὰρ ἀρετὰς εἰς τοὺς ἀριθμοὺς ἀνάγων οὐκ οἰκείαν τῶν ἀρετῶν τὴν θεωρίαν ἐποιεῖτο· οὐ γάρ ἐστιν ἡ δικαιοσύνη ἀριθμὸς ἰσάκεις ἴσος.

Geometry: The Pythagorean Theorem (D7)

D7

a (≠ DK) Diog. Laert. 8.12

φησὶ δ' Ἀπολλόδωρος ὁ λογιστικὸς ἑκατόμβην θῦσαι αὐτόν, εὐρόντα ὅτι τοῦ τριγώνου ὀρθογωνίου ἡ ὑποτείνουσα πλευρὰ ἴσον δύναται ταῖς περιεχούσαις.

thought that things that are born ensouled belong to the same race. For Pythagoras seems to have been the first to have introduced these doctrines into Greece.

See also **PHER. R1; XEN. D64**

Numbers: Justice Is a Square (D6)

D6 (58B.4) Ps.-Aristotle, *Magna Moralia*

Pythagoras was the first who tried to speak about virtue, but he did not do so correctly. For in referring the virtues to numbers he did not establish an appropriate way to study the virtues. For justice is not a number equal times equal [i.e. a square number].

See also e.g. **PYTHS. ANON. D20**

Geometry: The Pythagorean Theorem (D7)

D7

a (\neq DK) Diogenes Laertius

Apollodorus the mathematician says that he [i.e. Pythagoras] offered a hecatomb in sacrifice because he had discovered that the side subtending the right angle in a right triangle is equal in power to the sides containing the right angle [i.e. the square on the hypotenuse is equal to the sum of the squares on the sides].

b (58B.19) Procl. *In Eucl.* Prop. 47, theor. 33 (p. 426.1–9 Friedlein)

“ἐν τοῖς ὀρθογωνίοις $\bar{\Delta}$ τὸ ἀπὸ τῆς τὴν ὀρθὴν γωνίαν ὑποτεينوῦσης πλευρᾶς τετράγωνον ἴσον ἐστὶ τοῖς ἀπὸ τῶν περὶ τὴν ὀρθὴν γωνίαν πλευρῶν τετραγώνοις.”
τῶν μὲν ἱστορεῖν τὰ ἀρχαῖα βουλομένων ἀκούοντας
τὸ θεώρημα τοῦτο εἰς Πυθαγόραν ἀναπεμπόντων
ἐστὶν εὐρεῖν καὶ βουθύτην λεγόντων αὐτὸν ἐπὶ τῇ
εὐρέσει [. . .].

Music (D8)

D8 (≠ DK) Porph. *In Ptol. Harm.* 30.1–3

γράφει δὲ καὶ Ἡρακλείδης περὶ τούτων ἐν τῇ Μουσικῇ εἰσαγωγῇ ταῦτα· “Πυθαγόρας, ὥς φησι Ξενοκράτης [Frag. 9 Heinze], εὗρισκε καὶ τὰ ἐν μουσικῇ διαστήματα οὐ χωρὶς ἀριθμοῦ τὴν γένεσιν ἔχοντα [. . .].”

The First Inventor (prôtos heuretês) (D9–D14)

The Term ‘Philosophy’ (D9)

D9 (≠ DK) Diog. Laert.

a 1.12

φιλοσοφίαν δὲ πρῶτος ὠνόμασε Πυθαγόρας καὶ ἑαυτὸν φιλόσοφον [. . . = **PYTHS. R29a**].

b (58B.19) Proclus, *Commentary on Euclid*

[“In right-angled triangles, the square on the side subtending the right angle [i.e. the hypotenuse] is equal to the squares on the sides containing the right angle [scil. added together]” = Euclid, *Elements*, Book 1, Proposition 47]. One can find, if one reads the authors who investigate antiquity, some who attribute this theorem to Pythagoras and say he sacrificed an ox when he discovered it [. . .].

Music (D8)

D8 (\neq DK) Xenocrates in Porphyry, *Commentary on Ptolemy's Harmonics*

Heraclides writes the following about this in his *Introduction to Music*: “As Xenocrates says, Pythagoras also discovered that the musical intervals are not generated independently of number [. . .].”

The First Inventor (prôtos heuretês) (D9–D14)
The Term ‘Philosophy’ (D9)

D9 (\neq DK) Diogenes Laertius

a

Pythagoras was the first to use the term ‘philosophy’ and to call himself a ‘philosopher’ [. . .].

b 8.8

Σωσικράτης δ' ἐν Διαδοχαῖς φησιν αὐτὸν ἐρωτηθέντα
ὑπὸ Λέοντος τοῦ Φλιασίου τυράννου τίς εἶη, φιλόσο-
φος εἰπεῖν [. . . = **PYTHS. R29b**].

*Mathematics (D10–D12)**The Decad and the tetraktys (D10)*

D10 (cf. 58B.15) Sext. Emp. *Adv. Math.* 7.94

καὶ τοῦτο ἐμφαίνοντες οἱ Πυθαγορικοὶ ποτὲ μὲν εἰώθασι
λέγειν τὸ

– υ υ | – υ υ | – ἀριθμῶ δέ τε πάντ' ἐπέοικεν,

ὅτε δὲ τὸν φυσικώτατον ὁμνῆναι ὄρκον οὕτωςί,

οὐ μὰ τὸν ἀμετέρα κεφαλῇ παραδόντα τετρακτύν,
παγὰν ἀενάου φύσεως ριζώματ' ἔχουσιν,

τὸν μὲν παραδόντα λέγοντες Πυθαγόραν [. . .], τετρα-
κτύν δὲ ἀριθμὸν τινα, ὃς ἐκ τεσσάρων τῶν πρώτων
ἀριθμῶν συγκείμενος τὸν τελειότατον ἀπήρτιζεν,
ὥσπερ τὸν δέκα· ἐν γὰρ καὶ δύο καὶ τρία καὶ τέσσαρα
δέκα γίνονται.

b

Sosicrates says in his *Successions* that he [i.e. Pythagoras] was asked by Leon, the tyrant of Phlius, who he was, and he said, “A philosopher” [. . .].

See also **PYTH. a P18, PYTHS. R29**

Mathematics (D10–D12)
The Decad and the tetraktys (D10)

D10 (cf. 58B.15) Sextus Empiricus, *Against the Logicians*

To indicate this [scil. that the criterion of all things is number], the Pythagoreans had the habit of saying sometimes,

all things resemble number,

and at other times of swearing this oath, which was in the greatest conformity with nature:

No, by the man who bequeathed to our very self the
tetraktys,

The source that holds the roots of ever-flowing
nature,

meaning by ‘the man who bequeathed’ Pythagoras [. . .] and by ‘tetraktys’ a certain number that, composed out of the four first numbers, produces the most perfect number, i.e. ten: for one plus two plus three plus four makes ten.

Geometry (D11)

D11 (< 58B.1) Procl. *In Eucl.*, Prol. 2 (p. 65.15–21 Friedlein) (< Eudem. Frag. 133 Wehrli)

ἐπὶ δὲ τούτοις Πυθαγόρας τὴν περὶ αὐτὴν φιλοσοφίαν εἰς σχῆμα παιδείας ἐλευθέρου μετέστησεν, ἄνωθεν τὰς ἀρχὰς αὐτῆς ἐπισκοπούμενος καὶ αὐλῶς καὶ νοερῶς τὰ θεωρήματα διερευνώμενος, ὃς δὴ καὶ τὴν τῶν ἀλόγων πραγματείαν καὶ τὴν τῶν κοσμικῶν σχημάτων σύστασιν ἀνεῦρεν.

Weights and Measures (D12)

D12 (14.12) Diog. Laert 8.14

καὶ πρῶτον εἰς τοὺς Ἑλληνας μέτρα καὶ σταθμὰ εἰσηγήσασθαι, καθά φησιν Ἀριστόξενος ὁ μουσικός [Frag. 24 Wehrli].

The Term 'Cosmos' (D13)

D13 (14. 21) Aët. 2.1.1 (Plut.) [περὶ κόσμου]

Πυθαγόρας πρῶτος ὠνόμασε τὴν τῶν ὄλων περιοχὴν κόσμον ἐκ τῆς ἐν αὐτῷ τάξεως.

PYTHAGORAS c

Geometry (D11)

D11 (< 58B.1) Eudemus in Proclus, *Commentary on Euclid's Elements*

After these [i.e. Thales and Mamercus (?)], Pythagoras transformed the kind of philosophy regarding this [i.e. geometry] by giving it the form of a free discipline, considering its principles from the origin and investigating its propositions independently of matter and in accordance with the intelligible—he who also discovered the study of the irrationals and the arrangement of the cosmic figures.

Weights and Measures (D12)

D12 (14.12) Aristoxenus in Diogenes Laertius

As Aristoxenus the writer on music says, he was the first to introduce measures and weights into Greece.

The Term 'Cosmos' (D13)

D13 (14.21) Aëtius

Pythagoras was the first to call what surrounds all things 'kosmos' (i.e. a beautiful organized whole) because of the order (*taxis*) that is found there.

EARLY GREEK PHILOSOPHY IV

The Identity of the Morning Star and the Evening Star (D14)

D14 (< 28 A1) Diog. Laert. 8.14

πρώτόν τε Ἑσπερον καὶ Φωσφόρον τὸν αὐτὸν εἰπεῖν
[. . .].

‘Symbols’ (symbola) or ‘Sayings’
(akousmata) (D15–D25)
The Three Kinds of ‘Sayings’ (D15)

D15 (< 58C.4) Iambl. VP 82

πάντα δὲ τὰ οὕτως <καλούμενα>¹ ἀκούσματα διήρηται
εἰς τρία εἶδη· τὰ μὲν γὰρ αὐτῶν τί ἐστι σημαίνει, τὰ
δὲ τί μάλιστα, τὰ δὲ τί δεῖ πράττειν ἢ μὴ πράττειν.

¹ <καλούμενα> Nauck

The Identity of the Morning Star and the Evening Star (D14)

D14 (< 28 A1) Diogenes Laertius

He was the first to say that the morning star and the evening star are one and the same [. . .].

See also **PARM. D22**

'Symbols' (symbola) or 'Sayings' (akousmata) (D15–D25)¹
The Three Kinds of 'Sayings' (D15)

¹ A *symbolon* is originally a fragment of something permitting people who each possess a portion to recognize one another. This seems to be the original name for the statements that are also designated *akousmata* (a term that refers to the oral character of these statements: 'oral maxims,' 'sayings'), in relation with the distinction between two categories of Pythagoreans, the 'knowers' and the 'listeners' (see **PYTH b T15–T18**).

D15 (< 58C.4) Iamblichus, *Life of Pythagoras*

All of these sayings <called> 'acousmatic' are divided into three kinds: for some of them indicate what a thing is, others what something is most of all, and others what one should or should not do.¹

¹ This indication may go back to Aristotle's treatise *On the Pythagoreans*.

*Exegetical Traditions (D16–D19)***D16** (< 58C.6) *Suda* A.1987

Ἀναξίμανδρος, Ἀναξιμάνδρον, Μιλήσιος, ὁ νεώτερος, ἱστορικός. γέγονε δὲ κατὰ τοὺς Ἀρταξέρξου χρόνους τοῦ Μνήμονος¹ κληθέντος. ἔγραψε συμβόλων Πυθαγορείων ἐξήγησιν· οἷόν ἐστι τὸ ζυγὸν μὴ ὑπερβαίνειν, μαχαίρα πῦρ μὴ σκαλεύειν, ἀπὸ ὀλοκλήρου ἄρτου μὴ ἐσθίειν· καὶ τὰ λοιπά.

¹ ἀμείνωνος mss., corr. ed. Basil.

D17 (≠ DK) *Iambl.* VP 145

[. . .] τὰ ὑπὸ Ἀνδροκύδου ἐν τῷ περὶ Πυθαγορικῶν συμβόλων ἱστορούμενα περὶ Θυμαρίδου τοῦ Ταραντίνου, Πυθαγορικοῦ [. . .].

D18 (< 58C.4) *Iambl.* VP 86

ἐπ' ἐνίων μὲν οὖν ἐπιλέγεται <διὰ>¹ τί δεῖ, οἷον ὅτι δεῖ τεκνοποιεῖσθαι ἕνεκα τοῦ καταλιπεῖν ἕτερον ἀνθ' ἑαυτοῦ θεῶν θεραπευτήν, τοῖς δὲ οὐδεὶς λόγος πρόσεστι. καὶ ἔνια μὲν τῶν ἐπιλεγομένων δόξει προσπεφυκέναι ἀπ' ἀρχῆς,² ἔνια δὲ πόρρω· οἷον περὶ τοῦ τὸν ἄρτον μὴ καταγνύναι, ὅτι πρὸς τὴν ἐν Αἰδου κρίσιν οὐ συμφέρει. αἱ δὲ προστιθέμεναι εἰκοτολογίαι περὶ τῶν τοιούτων οὐκ εἰσὶ Πυθαγορικά, ἀλλ' ἐνίων ἐξωθεν ἐπισοφίζομένων καὶ πειρωμένων προσάπτειν εἰκότα

Exegetical Traditions (D16–D19)

D16 (< 58C.6) *Suda*

Anaximander the younger of Miletus, son of Anaximander, a historian. He lived in the time of Artaxerxes, called Mne-mon [405–359 BC]. He wrote an *Exegesis of Pythagorean Symbols*, such as “do not step across a pair of scales,” “do not stir up a fire with a knife,” “do not eat from a bread that has not been cut,” etc.

D17 (≠ DK) Iamblichus, *Life of Pythagoras*

[...] what Androcydes reports about Thymaridas of Tarentum, the Pythagorean, in his *On Pythagorean Symbols* [...].

D18 (< 58C.4) Iamblichus, *Life of Pythagoras*

In certain cases, the reason why one must [scil. do this] is added (for example, one must have children in order to leave behind another person in place of oneself to serve the gods), but in other cases no explanation has been added. And some of the added explanations seem to have been attached from the beginning, others later, for example, that one should not break a bread, for this is not helpful with regard to the judgment in Hades. But these added plausible explanations regarding these kinds of questions are not Pythagorean, but were devised additionally by certain outsiders who were trying to attach a plau-

¹ <δια> Kiessling
ms.: ἀπαρί Diels

² ἀπ’ ἀρχῆς Deubner: ἀπερ ἀν’ ἡ

λόγον, οἶον καὶ περὶ τοῦ νῦν λεχθέντος, διὰ τί οὐ δεῖ καταγνύναι τὸν ἄρτον· οἱ μὲν γάρ φασιν ὅτι οὐ δεῖ τὸν συνάγοντα διαλύειν (τὸ δὲ ἀρχαῖον βαρβαρικῶς πάντες ἐπὶ ἓνα ἄρτον συνήεσαν³ οἱ φίλοι), οἱ δ' ὅτι οὐ δεῖ οἰωνὸν ποιείσθαι τοιοῦτον ἀρχόμενον καταγνύντα καὶ συντρίβοντα.

³ συνήεσαν Rose: συνίεσαν ms.

D19 (≠ DK) Iambl. *Protr.* 21 (pp. 105.5–9, 106.9–12 Pistelli)

[. . .] τῶν γὰρ λεγομένων Πυθαγορικῶν συμβόλων ὅσα ἂν ἀξιομνημόνευτα ἡμῖν φαίνηται καὶ τὸ προτρεπτικὸν εἶδος παραδεικνύη ἐκθέμενοι, διεγνώκαμεν ἐξηγήσιν ποιήσασθαι τὴν πρέπουσαν αὐτῶν εἰς παράκλησιν [. . .]. καὶ εἰ μὴ τις αὐτὰ τὰ σύμβολα¹ ἐκλέξας διαπτύξει καὶ ἀμώκῳ ἐξηγήσει περιλάβοι, γελοῖα ἂν καὶ γραῶδη δόξειε² τοῖς ἐντυγχάνουσιν τὰ λεγόμενα λήρου μεστὰ καὶ ἀδολεσχίας.

¹ τὰ σύμβολα del. Nauck

² δόξειε Iambl. VP 105: δόξειαν ms.

Examples (D20–D25)

A List Transmitted by Iamblichus (D20)

D20 (< 58C.4) Iambl. VP 82–84

[82] [. . . = **D15**] τὰ μὲν οὖν τί ἐστι τοιαῦτα, οἶον

sible explanation, as for example regarding what I have just said: why should one not break a bread? For some say that one should not undo what is similar (for in ancient times, friends met around a single bread in the manner of barbarians), while others say that one should not give an omen of this kind by making a beginning by breaking and shattering.

D19 (\neq DK) Iamblichus, *Protreptic*

[. . .] After having indicated all of those symbols called Pythagorean that seem to us worth mentioning and that present the protreptic genre, we have decided to provide the exegesis of them that is suitable for an exhortation [. . .]. For if one did not choose these symbols in order to explain them and to supply them with a serious exegesis, these statements would seem to readers to be full of stupidity and idle chatter, ridiculous and worthy of old women.

Examples (D20–D25)

A List Transmitted by Iamblichus (D20)

D20 ($< 58C.4$) Iamblichus, *Life of Pythagoras*

[82] [. . .] Those [scil. acousmatic statements that indicate] what a thing is are of this sort:

τί ἐστιν αἱ μακάρων νῆσοι; ἥλιος καὶ σελήνη.
τί ἐστι τὸ ἐν Δελφοῖς μαντεῖον; τετρακτὺς· ὅπερ
ἐστὶν ἡ ἁρμονία, ἐν ᾗ αἱ Σειρήνες.

τὰ δὲ τί μάλιστα, οἶον

τί τὸ δικαιότατον; θύειν.
τί τὸ σοφώτατον; ἀριθμός· δεύτερον δὲ τὸ τοῖς
πράγμασι τὰ ὀνόματα τιθέμενον.
τί σοφώτατον τῶν παρ' ἡμῖν; ἱατρική.
τί κάλλιστον; ἁρμονία.
τί κράτιστον; γνώμη.
τί ἄριστον; εὐδαιμονία.
τί δὲ ἀληθέστατον λέγεται; ὅτι πονηροὶ οἱ ἄνθρωποι. [. . .]

[83] [. . .] τὰ δὲ τί πρακτέον ἢ οὐ πρακτέον τῶν ἀκουσμάτων τοιαῦτά ἐστιν, οἶον

ὅτι δεῖ τεκνοποιεῖσθαι (δεῖ γὰρ ἀντικαταλιπεῖν
τοὺς θεραπεύοντας τὸν θεόν), ἢ
ὅτι δεῖ τὸν δεξιὸν ὑποδεῖσθαι πρότερον, ἢ
ὅτι οὐ δεῖ τὰς λεωφόρους βαδίζειν ὁδοὺς οὐδὲ εἰς
περιρραντήριον ἐμβάπτειν οὐδὲ ἐν βαλανείῳ
λούεσθαι· ἄδηλον γὰρ ἐν πᾶσι τούτοις εἰ καθ-
αρεύουσιν οἱ κοινωνοῦντες.

[84] καὶ ἄλλα τάδε·

φορτίον μὴ συγκαθαιρεῖν (οὐ γὰρ δεῖ αἷτιον γίνε-
σθαι τοῦ μὴ πονεῖν), συνανατιθέναι δέ.

What are the Islands of the Blessed?—The sun and the moon.

What is the oracle of Delphi?—The tetraktys, which is the harmony in which the Sirens [scil. sing].

Those that indicate what something is most of all, for example:

What is the most just thing?—To sacrifice.

What is the wisest thing?—Number, and secondly the man who gave things their names.

What is the wisest among us?—Medicine.

The most beautiful?—Harmony.

The strongest?—Intelligence.

The best?—Happiness.

What is the truest thing that is said?—That men are wicked. [. . .]

[83] [. . .] Those acousmatic statements that say what one should or should not do are of this kind, for example:

One must make children. For one must leave behind in place of oneself servants of god; or

One must put a shoe on one's right foot first; or

One must not use the main streets, nor soak oneself in a vessel of lustral water, nor bathe in a public bath.

For in all these cases it is uncertain whether the people who are sharing them are pure.

[84] And here are some others:

Do not help someone put down a burden (for one should not be the reason for one's not exerting oneself), but help to lift it up.

χρυσὸν ἐχούσῃ μὴ πλησιάζειν ἐπὶ τεκνοποιίᾳ.
 μὴ λέγειν ἄνευ φωτός.
 σπένδειν τοῖς θεοῖς κατὰ τὸ οὖς τῆς κύλικος οἰωνοῦ
 ἔνεκεν, καὶ ὅπως μὴ ἀπὸ τοῦ αὐτοῦ πίνηται.
 ἐν δακτυλίῳ μὴ φέρειν σημεῖον θεοῦ εἰκόνα, ὅπως
 μὴ μιαίνηται ἄγαλμα γάρ, ὅπερ δεῖ φυτεῦσαι
 ἐν τῷ οἴκῳ.
 γυναῖκα οὐ δεῖ διώκειν τὴν αὐτοῦ, ἰκέτις γάρ· διὸ
 καὶ ἀφ' ἐστίας ἀγόμεθα, καὶ ἡ λήψις διὰ δεξιᾶς.
 μηδὲ ἀλεκτρύονα λευκὸν <θύειν>¹ ἰκέτης γάρ, ἱε-
 ρὸς² τοῦ Μηνός, διὸ καὶ σημαίνουσιν ὥραν. [...]

¹ <θύειν> suppl. Scaliger, cf. *Protr.* 107.18 ² <καὶ>
 ἱερὸς Salmasius

*Some Shorter Reports That Go Back to
 Aristotle (D21–D23)*

D21 (58C.1) *Arist. An. Post.* 2.11 94b33–34

[. . .] καὶ, εἰ [scil. βροντᾶ] ὥς οἱ Πυθαγόρειοί φασιν,
 ἀπειλῆς ἔνεκα τοῖς ἐν τῷ ταρτάρῳ, ὅπως φοβῶνται.

D22 (< 58C.3) *Diog. Laert.* 8.34–35.

φησὶ δ' Ἀριστοτέλης ἐν τῷ Περὶ τῶν Πυθαγορείων¹
 [Frag. 195 Rose] παραγγέλλειν αὐτὸν

¹ Πυθαγορείων Diels: κνάμων mss.

Do not, in order to make children, sleep with a woman who is wearing gold.

Do not speak in darkness.

Pour libations to the gods from the side of the vase handle because of the good omen and in order not to drink from the same side.

Do not wear on your finger an image that is a sign of the god, lest it become dirty. For this is a holy image, which must be set up in the house.

Do not expel your wife, for she is a suppliant. That is why we lead her out from her hearth and take her by the right hand.

Do not <sacrifice> a white rooster, for it is a suppliant holy to the Month, and that is why they indicate the hour [. . .].¹

¹ The list continues in the following paragraph. Iamblichus, *Protreptic* 21, gives thirty-nine maxims of the third type without exegesis, followed by a continuous exegetic block (58C.6).

*Some Shorter Reports That Go Back to
Aristotle (D21–D23)*

D21 (58C.1) Aristotle, *Posterior Analytics*

[. . .] and if [scil. it thunders,] if it is as the Pythagoreans say, it is so as to threaten those in Tartarus, in order to make them afraid.

D22 (< 58C.3) Diogenes Laertius

Aristotle says in his *On the Pythagoreans* that he commands

ἀπέχεσθαι τῶν κυάμων ἦτοι ὅτι αἰδοίοις εἰσὶν ὅμοιοι, ἢ ὅτι Ἄιδου πύλαις·² ἀγόνατον γὰρ μόνον· ἢ ὅτι φθείρει· ἢ ὅτι τῇ τοῦ ὄλου φύσει ὅμοιον· ἢ ὅτι <οὐκ>³ ὀλιγαρχικόν· κληροῦνται γοῦν αὐτοῖς.

τὰ δὲ πεσόντα⁴ μὴ ἀναιρεῖσθαι, ὑπὲρ τοῦ ἐθίζεσθαι μὴ ἀκολάστως ἐσθίειν, ἢ ὅτι ἐπὶ τελευτῇ τινος.
[. . .]

ἀλεκτρυόνος μὴ ἄπτεσθαι λευκοῦ, ὅτι ἱερὸς τοῦ Μηνὸς⁵ καὶ ἱκέτης· τὸ δ' ἦν τῶν ἀγαθῶν·⁶ τῷ τε Μηνὶ ἱερός· σημαίνει γὰρ τὰς ὥρας. καὶ τὸ μὲν λευκὸν τῆς τἀγαθοῦ φύσεως, τὸ δὲ μέλαν τοῦ κακοῦ.⁷

τῶν ἰχθύων μὴ ἄπτεσθαι ὅσοι ἱεροί· μὴ γὰρ δεῖν τὰ αὐτὰ τετάχθαι θεοῖς καὶ ἀνθρώποις, ὥσπερ οὐδὲ ἐλευθέρους καὶ δούλους.

[35] ἄρτον μὴ καταγνύνειν, ὅτι ἐπὶ ἓνα οἱ πάσαι τῶν φίλων ἐφοίτων, καθάπερ ἔτι καὶ νῦν οἱ βάρβαροι· μὴ δὴ⁸ διαιρεῖν ὅς συνάγει αὐτούς· οἱ δέ, πρὸς τὴν ἐν Ἄιδου κρίσιν· οἱ δ', εἰς πόλεμον δειλίαν ποιεῖν· οἱ δέ, ἐπεὶ ἀπὸ τούτου ἄρχεται τὸ ὄλον.
καὶ τῶν σχημάτων τὸ κάλλιστον σφαῖραν εἶναι τῶν στερεῶν, τῶν δὲ ἐπιπέδων κύκλον.

² post πύλαις lac. indic. Diels

³ <οὐκ> Richards

⁴ πεσόντα <ἀπὸ τραπέζης> Hübner

⁵ μηνὸς mss.:

ἡλίου Suda

⁶ τὸ . . . ἀγαθῶν secl. Menagius

to abstain from beans, either because they resemble the testicles or the gates of Hades, for it is the only [scil. plant whose stem] has no knots; or because it is destructive; or because it resembles the nature of the whole; or because it is <not> oligarchic, in any case it is used for drawing lots.

not to pick up what has fallen, in order to become accustomed to not eating overmuch; or because it indicates someone's death. [. . .]

not to lay hands on a white rooster, because it is holy to the Month and a suppliant (which is one of the good things); and it is holy to the Month, for it indicates the hours; and white belongs to the nature of the good, black to that of evil.

not to lay hands on those fish that are sacred; for one must not assign the same things to gods and to humans, just as one must not do so to free men and to slaves.

[35] not to break bread, for in ancient times friends came together around one bread, just as even now the barbarians do; and one should not divide what unites them; others refer this to the judgment in Hades; others say that it causes cowardice in war; others, since it is from this (?) that the whole has its beginning.

And among figures, the most beautiful of the solid ones is the sphere, and of the plane ones the circle.

⁷ καὶ . . . τοῦ κακοῦ post δούλοις mss., huc transp.
Diels ⁸ μὴ δὴ B² (δεῖ B¹) P¹: μὴ γούνη Φ: μὴδὲ FP²: καὶ
μὴ Suda

γῆρας καὶ πᾶν τὸ μειούμενον⁹ ὁμοιον· καὶ αὔξην
καὶ νεότητα ταυτόν.

ὑγίειαν τὴν τοῦ εἶδους διαμονήν, νόσον τὴν τούτου
φθοράν.

περὶ τῶν ἁλῶν, ὅτι δεῖ παρατίθεσθαι πρὸς ὑπόμνη-
σιν τοῦ δικαίου· οἱ γὰρ ἅλεις πᾶν σφύζουσιν ὃ τι
καὶ παραλάβωσι, καὶ γεγόνασιν ἐκ τῶν καθαρω-
τάτων ὑδάτων¹⁰ καὶ¹¹ θαλάσσης.

⁹ μειούμενον FP⁴: μμούμενον BP¹Q ¹⁰ ὑδάτων Suda:
ὑδατος mss.; ἡλίου Cobet ¹¹ καὶ mss.: τῆς Marcovich

D23 (58C.2) Porph. VP 41

ἔλεγε δέ τινα καὶ μυστικῶ τρόπῳ συμβολικῶς, ἃ δὴ
ἐπὶ πλέον Ἀριστοτέλης ἀνέγραψεν· οἷον ὅτι τὴν
θάλατταν μὲν ἐκάλει εἶναι δάκρυον,¹ τὰς δ' ἄρκτους
ῥέας χεῖρας, τὴν δὲ Πλειάδα Μουσῶν λύραν, τοὺς δὲ
πλανήτας κύνας τῆς Φερσεφόνης. τὸν δ' ἐκ χαλκοῦ
κρονομένου γινόμενον ἦχον φωνὴν εἶναί τινος τῶν
δαιμόνων ἐναπειλημμένου² τῷ χαλκῷ.

¹ <Κρόνου> δάκρυον Stanley, <Ἰνουῦς> δάκρυον Nauck
² ἐναπειλημμένου Nauck: -μένην mss.

Old age is similar to everything that diminishes; and growth and youth are the same thing.

Health is the persistence of the form, illness its destruction.

With regard to salt, it should be brought to the table as a reminder of justice: for salt preserves everything that it receives, and it comes from the purest waters and from the sea.

D23 (58C.2) Porphyry, *Life of Pythagoras*

Some things he said were expressed symbolically in the manner of the mysteries, and Aristotle has written down a great number of these, like the fact that he called the sea ‘tear’ [i.e. probably <**Cronus**>], the constellations of the Bears ‘**Rhea’s hands**,’ the Pleiades ‘**the Muses’ lyre**,’ the planets ‘**Persephone’s dogs**,’ and the sound produced by bronze when it is struck ‘**the voice of one of the demons**’ trapped in the bronze [. . .].¹

¹ The examples continue until §45.

Two Other Reports (D24–D25)

D24 (< 58C.5) Ps.-Arist. *Oec.* 1.4 1344a8–12

[. . .] καθάπερ οἱ Πυθαγόρειοι λέγουσιν ὥσπερ ἰκέτιν
καὶ ἀφ' ἐστίας ἡγμένην ὡς ἤκιστα δεῖν ἀδικεῖν.

D25 (58C.2) Ael. *Var. hist.* 4.17

ἔλεγε δὲ ἱερώτατον εἶναι τὸ τῆς μαλάχης φύλλον.
ἔλεγε δὲ ὅτι πάντων σοφώτατον ὁ ἀριθμός, δεύτερος
δὲ ὁ τοῖς πράγμασι τὰ ὀνόματα θέμενος. καὶ τὸν σει-
σμὸν ἐγενεαλόγει οὐδὲν ἄλλο εἶναι ἢ σύνοδον τῶν
τεθνεώτων. ἡ δὲ ἱρις, ἔφασκεν, ὡς αὐγῇ¹ τοῦ ἡλίου
ἐστί. καὶ ὁ πολλάκις ἐμπίπτων τοῖς ὥσιν ἦχος φωνῇ
τῶν κρειττόνων.

¹ ἡ γῇ mss., corr. Gessner

Two Other Reports (D24–D25)

D24 (< 58C.5) Ps.-Aristotle, *Economics*

[. . .] as the Pythagoreans say, one must absolutely not commit injustice [scil. to one's wife], because she is like a suppliant who has been led away from her hearth.

D25 (58C.2) Aelian, *Historical Miscellany*

He said that the holiest thing is the leaf of the mallow; and he said that the wisest of all things is number, and second the man who gave things their names; and he explained that the origin of the earthquake was that it is nothing other than the assembly of the dead, and he said that the rainbow is like a ray of the sun and that the echo that often strikes the ears is the voice of those who are superior [i.e. the gods].

11. HIPPASUS [HIPPAS.]

We know very little about Hippasus, but he is interesting for two reasons connected with the question of the identity of Pythagoreanism, from both an institutional and a doctrinal perspective: with regard to the history of the school, his name is associated with the question of secrecy and the divulgence of doctrines; and the fact that, despite sharing an interest in numbers and musical ratios, he nonetheless adopted fire as a principle, is important evidence for the compatibility of diverse options and orientations with the designation as a 'Pythagorean.' Further evidence of this is provided by the case of Menestor, whom we have not included in our collection but whom we know to have been interested in plants (cf. 32.2–7 DK).

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See also the titles listed in the General Introduction to Chapters 10–18.

HIPPASUS

OUTLINE OF THE CHAPTER

P

Origin (P1)

A Controversial Figure (P2–P3)

D

Writings? (D1–D2)

Fire as the Principle (D3–D4)

The Soul (D5)

The Means (D6)

Musical Theory (D7–D9)

HIPPASUS [18 DK]

P

Origin (P1)

P1 Iambl. VP

a (< 18.2) 81

τὸν δὲ Ἰππασον οἱ μὲν Κροτωνιάτην φασίν, οἱ δὲ
Μεταποντῖνον.

b (18.2, 58A.) 267

Συβαρίται [. . .] Ἰππασος [. . .].

A Controversial Figure (P2–P3)

P2 (< 18.4) Iambl. *Comm.* 25 (p. 77.18–23 Festa)

περὶ δ' Ἰππάσου λέγουσιν ὥς ἦν μὲν τῶν Πυθαγο-
ρείων, διὰ δὲ τὸ ἐξενεγκεῖν καὶ γράψασθαι πρῶτος
σφαῖραν τὴν ἐκ τῶν δώδεκα πενταγώνων¹ ἀπώλετο

¹ πενταγώνων Iambl. VP 88: ἑξαγώνων mss.

HIPPASUS

P

Origin (P1)

P1 Iamblichus, *Life of Pythagoras*

a (< 18.2)

[. . .] Some say that Hippasus was from Croton, others from Metapontum.

b (18.2, 58A.)

From Sybaris [. . .] Hippasus [. . .] [cf. **PYTH. b T30[6]**].

A Controversial Figure (P2–P3)

P2 (< 18.4) Iamblichus, *On General Mathematical Science*

Regarding Hippasus in particular, [scil. the Pythagoreans called the ‘knowers’ (*mathêmatikoi*)] say that he was one of the Pythagoreans, but that, because he had for the first time revealed how to draw a sphere starting from twelve pentagons [i.e. the dodecahedron], he perished at sea be-

κατὰ θάλατταν ὡς ἀσεβήσας, δόξαν δὲ λάβοι ὡς εὐ-
ρών, εἶναι δὲ πάντα ἐκείνου τοῦ ἀνδρός.

P3 (17.3) Diog. Laert. 8.55

τὴν γὰρ περιφερομένην¹ πρὸς² <Φιλόλαον>³ Τηλαύ-
γους ἐπιστολὴν ὅτι τε⁴ μετέσχευεν Ἰππάσου καὶ Βροτί-
νου, μὴ εἶναι ἀξιόπιστον.

¹ περιφερομένην PF: προσφερομένην B ² πρὸς mss.:
ὡς Reiske ³ <Φιλόλαον> Roeper (cf. 8.53) ⁴ τε BP:
μὲν F

HIPPASUS

cause of his impiety.¹ He acquired the reputation of having discovered it himself; but in fact everything came from the 'great man' [cf. **PYTH. b T8**].

¹ The name of Hippasus is also connected with the discovery—and the divulgation—of the irrational numbers, cf. **PYTH. b T20**.

P3 (17.3) Diogenes Laertius

The letter to <Philolaus> that is in circulation under the name of Telauges, in which he claims that he [i.e. Empedocles] participated [scil. in the teaching] of Hippasus and Brontinus, is not credible.

HIPPASUS [18 DK]

D

Writings? (D1–D2)

D1 (< 18.1) Diog. Laert. 8.84

φησὶ δ' αὐτὸν Δημήτριος ἐν Ὁμωνύμοις [Frag. 25 Mejer] μηδὲν καταλιπεῖν σύγγραμμα.

D2 (18.3) Diog. Laert. 8.7

τὸν δὲ Μυστικὸν λόγον Ἰππάσου φησὶν [scil. Ἡρακλείδης ὁ τοῦ Σαραπίωνος ἐν τῇ Σωτίωνος ἐπιτομῇ [Frag. 24 Wehrli]] εἶναι, γεγραμμένον ἐπὶ διαβολῇ Πυθαγόρου [. . .].

Fire as the Principle (D3–D4)

D3 (18.7) Arist. *Metaph.* A3 984a7

[. . .] Ἰππασος δὲ πῦρ ὁ Μεταποντίνος καὶ Ἡράκλειτος ὁ Ἐφέσιος [. . .].

HIPPASUS

D

Writings? (D1–D2)

D1 (< 18.1) Demetrius of Magnesia in Diogenes Laertius
Demetrius says in his *Homonyms* that he [i.e. Hippasus]
did not leave behind any written treatise.

D2 (18.3) Diogenes Laertius

He [i.e. Heraclides Lembos in his *Epitome of Sotion*] says
that the *Mystic Discourse* was the work of Hippasus, and
was written in order to defame Pythagoras [. . .].

Fire as the Principle (D3–D4)

D3 (18.7) Aristotle, *Metaphysics*

[. . .] Hippasus of Metapontum and Heraclitus of Ephesus
[scil. say that the principle is] fire [. . .].

D4 (18.7) Simpl. *In Phys.*, pp. 23.33–24.4 (= Theophr. Frag. 225 FHS&G)

Ἰππασος δὲ ὁ Μεταποντῖνος καὶ Ἡράκλειτος ὁ Ἐφέσιος ἔν καὶ οὗτοι καὶ κινούμενον καὶ πεπερασμένον, ἀλλὰ πῦρ ἐποίησαν τὴν ἀρχὴν καὶ ἐκ πυρὸς ποιούσι τὰ ὄντα πυκνῶσει καὶ μανῶσει καὶ διαλύουσι πάλιν εἰς πῦρ, ὥς ταύτης μιᾶς οὔσης φύσεως τῆς ὑποκειμένης.

The Soul (D5)

D5 (18.9) Aët. 4.3.4 (Stob.; cf. Theod.) [εἰ σῶμα ἡ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς]

[. . .] Ἰππασος¹ πυρώδη.

¹ Ἰππασος καὶ Ἡράκλειτος Theod.

The Means (D6)

D6 (> 18.15) Iambl. *In Nic.*, pp. 100.19–101.1

μόναι δὲ τὸ παλαιὸν τρεῖς ἦσαν μεσότητες ἐπὶ Πυθαγόρου καὶ τῶν κατ' αὐτὸν μαθηματικῶν, ἀριθμητικὴ τε καὶ ἡ γεωμετρικὴ καὶ ἡ ποτὲ μὲν ὑπεναντία λεγόμενῃ τῇ τάξει τρίτῃ,¹ ὑπὸ δὲ τῶν περὶ Ἀρχύταν αὐθις καὶ Ἰππασον ἀρμονικὴ μετακληθεῖσα, ὅτι τοὺς κατὰ

¹ τρίτῃ mss., corr. Pistelli

HIPPASUS

D4 (18.7) Theophrastus in Simplicius, *Commentary on Aristotle's Physics*

Hippasus of Metapontum and Heraclitus of Ephesus [scil. said] themselves too that it [i.e. the principle] is one, in motion, and limited, but they made fire the principle and explain the things that are as coming from fire by condensation and rarefaction, and they dissolve them once again into fire, on the supposition that this is the only nature that is a substrate.¹

¹ It is from here that the Christian interpretation in the *Protreptic* of Clement of Alexandria arises: Hippasus of Metapontum and Heraclitus of Ephesus thought that fire was god (18.8 DK).

The Soul (D5)

D5 (18.9) Aëtius

[. . .] Hippasus: [scil. the soul is] made of fire.

The Means (D6)

D6 (> 18.15) Iamblichus, *Commentary on Nicomachus' Introduction to Arithmetic*

Formerly, at the time of Pythagoras and the mathematicians of his school, there were only three means: the arithmetic, the geometric, and, third in order, the one that used to be called 'subcontrary' [or: 'inverse' (*hupenantia*)] but which Archytas and Hippasus renamed 'harmonic,' since

τὸ ἡρμουςμένον καὶ ἐμμελὲς ἐφαίνετο λόγους περιέχουσα. ὑπεναντία δὲ πρότερον ἐκαλεῖτο, διότι ὑπεναντίον τι ἔπασχε τῇ ἀριθμητικῇ, ὥς δειχθήσεται.

Musical Theory (D7–D9)

D7 (18.12) Schol. in Plat. *Phaed.* 108d (< Aristox. Frag. 90 Wehrli)

Ἴππασος γάρ τις κατεσκεύασε χαλκοῦς τέτταρας δίσκους οὕτως ὥστε τὰς μὲν διαμέτρους αὐτῶν ἴσας ὑπάρχειν, τὸ δὲ τοῦ πρώτου δίσκου πάχος ἐπίτριτον μὲν εἶναι τοῦ δευτέρου, ἡμιόλιον δὲ τοῦ τρίτου, διπλάσιον δὲ τοῦ τετάρτου, κρονομένους δὲ τούτους ἐπιτελεῖν¹ συμφωνίαν τινά. καὶ λέγεται Γλαῦκον ἰδόντα τοὺς ἐπὶ τῶν δίσκων φθόγγους πρῶτον ἐγχειρῆσαι δι' αὐτῶν χειρουργεῖν [. . .].

¹ κρονομένους . . . τούτους ἐπιτελεῖν T: κρινομένους . . . ἀποτελεῖν b

D8 (< 18.13) Theon Sm. *Exp.*, p. 59.7–21

Λᾶσος δὲ ὁ Ἑρμιονεύς, ὥς φασι, καὶ οἱ περὶ τὸν Μεταποντῖνον Ἴππασον Πυθαγορικὸν ἄνδρα συνέπε-

it manifestly contained the ratios that constitute harmony and melody. Earlier it was called 'subcontrary' because it manifested something 'contrary' to the arithmetic mean.¹

¹ A little further, Iamblichus explains that, contrarily to the arithmetic mean, where the mean is exceeded and exceeds by one of its own parts, that is by an equal number [scil. in the two cases] or a unit, the middle term of the arithmetic mean exceeds and is exceeded by one of the parts of the extremes, that is by a number that is not equal [scil. in the two cases]. The harmonic mean is the subcontrary, or inverse, of the arithmetic mean because one can construct the octave by first ascending by a fourth then by a fifth, then descending by a fourth, then by a fifth (cf. Huffman, pp. 176–77).

Musical Theory (D7–D9)

D7 (18.12) Aristoxenus in Scholia on Plato's *Phaedo* [Regarding the expression 'Glaucus' art,' which suggests skill]

A certain Hippasus prepared four bronze disks in such a way that their diameters were equal, but the thickness of the first disk was epitritie with regard to the second one [= 4:3], hemiolic with regard to the third one [3:2], and the double of the fourth one, and when they were struck they produced a certain concord. And it is said that when Glaucus perceived the sounds coming from the disks, he was the first to try to make music with them [. . .].

D8 (< 18.13) Theon of Smyrna, *Aspects of Mathematics Useful for the Reading of Plato*

Lasus of Hermione, as they say, as well as the disciples of Hippasus of Metapontum, the Pythagorean, thinking that

σθαι τῶν κινήσεων τὰ τάχῃ καὶ τὰς βραδυτήτας, δι' ὧν αἱ συμφωνίαι¹ ἐν ἀριθμοῖς ἡγούμενος λόγους τοιούτους ἐλάμβανεν ἐπ' ἀγγείων. ἴσων γὰρ ὄντων καὶ ὁμοίων πάντων τῶν ἀγγείων τὸ μὲν κενὸν ἐάσας, τὸ δὲ ἥμισυ ὑγροῦ <πληρώσας>² ἐψόφει ἐκατέρῳ, καὶ αὐτῷ ἢ διὰ πασῶν ἀπεδίδοτο συμφωνία· θάτερον δὲ πάλιν τῶν ἀγγείων κενὸν ἐὼν εἰς θάτερον τῶν τεσσάρων μερῶν τὸ ἐν ἐνέχεε, καὶ κρούσαντι αὐτῷ ἢ διὰ τεσσάρων συμφωνία ἀπεδίδοτο, ἢ δὲ διὰ πέντε, <ὅτε>³ ἐν μέρος τῶν τριῶν συνεπλήρου οὔσης τῆς κενώσεως πρὸς τὴν ἑτέραν ἐν μὲν τῇ διὰ πασῶν ὡς β' πρὸς ἔν, ἐν δὲ τῷ διὰ πέντε ὡς γ' πρὸς β', ἐν δὲ τῷ διὰ τεσσάρων ὡς δ' πρὸς γ'.

¹ lac. post συμφωνίαι pos. Hiller
Hiller

² <πληρώσας>

³ <ὅτε> Hiller

D9 (18.14) Boeth. *Mus.* 2.19

sed Eubulides atque Hippasus alium consonantiarum ordinem ponunt. aiunt enim multiplicitatis augmenta superparticularitatis deminutioni rato ordine respondere. itaque non posse esse duplum praeter dimidium nec triplum praeter tertiam partem. quoniam igitur sit duplum, ex eo diapason consonantiam reddi, quoniam vero sit dimidium, ex eo quasi contrariam divisionem sesquialteram, id est diapente, effici proportionem. quibus mixtis, scilicet diapason ac diapente, triplicem procreari, quae utramque contineat symphoniam. sed rursus triplici partem tertiam

HIPPASUS

the quickness and slowness of the movements from which the concords [scil. arise] can be expressed in numbers, obtained these [scil. numerical] ratios by making use of vessels. For all the vessels being of the same size and shape, he left one empty and filled a second one half full with water; when he struck both of them, he obtained the concord of the octave. Then, again leaving one of the vases empty, he filled the other one a quarter full; and when he struck them he obtained the concord of the fourth; and the concord of a fifth, <when> he filled it one third full, the ratio between the emptiness of one vase and that of the other being as 2 to 1 in the concord of the octave, as 3 to 2 in the concord of the fifth, and as 4 to 3 in the concord of the fourth.¹

¹ This alleged experiment does not correspond to the phenomena (see Barker, *Greek Musical Writings*, vol. 2, p. 32).

D9 (18.14) Boethius, *Fundamentals of Music*

But Eubulides and Hippasus posit a different order of concords. For they say that an increase of multiplicity corresponds to a decrease in superparticularity according to a fixed order. And thus there cannot be a double without a half, nor a triple without a third. Therefore, since there is the double, the concord of an octave (*diapasôn*) is produced; and since there is the half, the division that is as it were contrary, the ratio 3 to 2, i.e. the fifth (*dia pente*) is produced. When these, i.e. the octave and the fifth, are mixed together, this generates the triple, which contains within it both concords. But again the third is produced

contraria divisione partiri, ex qua rursus diatessaron symphonia nascetur. triplicem vero atque sesquitertium iunctos quadruplam comparisonem proportionis efficere. unde fit, ut ex diapason ac diapente, quae est una consonantia, et diatessaron una concinentia coniungatur, quae in quadruplo consistens bis diapason nomen accepit. secundum hoc quoque hic ordo est: diapason, diapente, diapason ac diapente, diatessaron, bis diapason.

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by the contrary division of the triple, out of which in turn the fourth (*diatessarôn*) is generated. When the triple and the 3 to 2 [scil. ratios] are combined, they produce a quadruple ratio. From this it comes about that from the octave and the fifth, which together form a consonance, as well as from the fourth, a concord is constructed, which, because it consists of a quadruple, has received the name 'double octave' (*bis diapasôn*). So according to this the order is the following: octave; fifth; octave and fifth; fourth; double octave.¹

¹ It is very unlikely that these indications go back to Hippasus.

12. PHILOLAUS [PHILOL.]

Philolaus doubtless came from Croton (though Iamblichus' list speaks of Tarentum: **PYTH. b T30 [5]**); we lack any information to date his birth and death, but the indications that we do possess suggest that he was a contemporary of Socrates. He is the first Pythagorean whose doctrine we can really grasp, because he is the first one to have written a book, and of this book a certain number of fragments and a series of testimonia have survived. It is likely that Philolaus' book is Aristotle's principal source of doctrinal information on many aspects of Pythagorean thought; and if this is true, then he refers to it with a very revealing general formula, 'those whom people call the Pythagoreans,' suggesting that even if Philolaus is able to represent a 'school' that in several regards was surely already mysterious for Aristotle, nonetheless he could be sufficiently differentiated from the tutelary figure of Pythagoras that it was possible not to call him a 'Pythagorean' without further qualification. In fact, the degree of abstraction presupposed by Philolaus' doctrine of the principles (which he calls 'unlimited' and 'limiting') and the general function assigned to the notion of 'harmony' (or 'fitting together') give a new turn—one that will be important in determining the later development of Pythagorean

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doctrine—to the original conception of numbers in Pythagoras himself and in the first generation of Pythagoreans (as difficult as this is to grasp). Indeed, Philolaus' thought is at least as close, and perhaps even closer, to the other great representatives of 'Presocratic' philosophy as it is to the singularities peculiar to the Pythagorean collectivity. But his transmission is disturbed by the existence—characteristic of the whole 'Pythagorean' problem—of a significant pseudepigraphic literature. Sometimes this can easily be identified (specimens are found in **PYTHS. R47–R51**), but this is not always the case. A certain number of fragments transmitted under the name of Philolaus are traditionally considered suspect: they are rejected by some interpreters and accepted by other ones. We have followed the edition of C. Huffman with regard to identifying the authentic fragments; but we have suggested the nature of the problem by providing as an appendix a selection of this type of fragments, about which readers will form their own opinion.

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See also the titles listed in the General Introduction to Chapters 10–18.

PHILOLAUS

OUTLINE OF THE CHAPTER

P

Origin (P1)

Chronological Indications . . . (P2–P6)

. . . Suggesting an Earlier Dating (P2–P3)

. . . Suggesting a Later Dating (P4–P6)

Practice of the Aulos (P7)

Philolaus' Book as Plato's Source? (P8)

D

Philolaus' Book (D1)

The Principles (D2–D5)

Number and the Mathematical Sciences (D6–D12)

Number in General (D6–D9)

Noteworthy Numbers (D10–D12)

The Monad (D10)

The Hebdomad (D11)

The Decad (?) (D12)

Means (D13)

Musical Harmony (D14)

Generation and Destruction of the Cosmos (D15–D18)

Cosmology (D19–D24)

The Order of the World (D19)

The Earth (D20–D21)

The Sun and Moon (D22–D23)

The Great Year (D24)

Embryology and Medicine (D25–D26)

Soul and Thought (D27–D28)

Appendix: Some Examples of Suspect Fragments and Reports (D29–D35)

PHILOLAUS [44 DK]

P

Origin (P1)

P1 (< A1) Diog. Laert. 8.84

Φιλόλαος Κροτωνιάτης [. . .].

Chronological Indications . . . (P2–P6)

. . . Suggesting an Earlier Dating (P2–P3)

P2 (cf. A1a) Schol. in Plat. *Phaed.* 61d

Φιλολάω] Πυθαγόρειος οὗτος ἦν, ἐξ Ἰταλίας πεφευγὼς διὰ τὸν ἐμπρησμὸν τούτων τὸν ὑπὸ Κύλωνος γεγονότα [. . .]. ἦλθεν οὗτος εἰς Θήβας, τεθνεώτι τῷ διδασκάλῳ Λύσιδι χοὰς ποιήσασθαι ἐκείσε τεθαμμένῳ. Ἴππαρχος δὲ καὶ Φιλόλαος μόνοι τῆς εἰρημένης συμφορᾶς τῶν Πυθαγορείων διεσώθησαν.

PHILOLAUS

P

Origin (P1)

P1 (< A1) Diogenes Laertius

Philolaus of Croton [. . .].

See also **PYTH. b T30** [5]

Chronological Indications . . . (P2–P6)
. . . Suggesting an Earlier Dating (P2–P3)

P2 (cf. A1a) Scholia on Plato's *Phaedo*

Philolaus: This was a Pythagorean who had fled from Italy because the burning of these men caused by Cylon [cf. **PYTH. b T25**] [. . .]. So he came to Thebes to make libations for his teacher Lysis, who had died and was buried there. Hipparchus¹ and Philolaus were the only Pythagoreans who escaped from the above-mentioned catastrophe.

¹ Often corrected to 'Archippos.'

P3 (A4a) Plut. *Gen. Socr.* 13 583A

ἐπεὶ γὰρ ἐξέπεσον αἱ κατὰ πόλεις ἐταιρείαι τῶν Πυθαγορικῶν στάσει κρατηθέντων, τοῖς δ' ἔτι συνεστῶσιν ἐν Μεταποντίῳ συνεδρεύουσιν ἐν οἰκίᾳ πῦρ οἱ Κυλώνειοι περιένησαν καὶ διέφθειραν ἐν ταύτῳ¹ πάντας πλὴν Φιλολάου καὶ Λύσιδος νέων ὄντων ἔτι ῥώμῃ καὶ κουφότητι διωσαμένων τὸ πῦρ, Φιλόλαος μὲν εἰς Λευκανοὺς φυγὼν ἐκεῖθεν ἀνεσώθη πρὸς τοὺς ἄλλους φίλους ἤδη πάλιν ἀθροιζομένους καὶ κρατοῦντας τῶν Κυλωνείων [. . .].

¹ τοῦτῳ mss., corr. Wytttenbach

. . . *Suggesting a Later Dating* (P4–P6)

P4 (> A1a) Plat. *Phaed.* 61d–e

[ΣΩ.] τί δέ, ὦ Κέβης; οὐκ ἀκηκόατε σύ τε καὶ Σιμμίας περὶ τῶν τοιούτων Φιλολάῳ συγγεγονότες; [. . .]

[ΚΕ.] ἤδη γὰρ ἔγωγε [. . .] καὶ Φιλολάου ἤκουσα, ὅτε παρ' ἡμῖν διητᾶτο, ἤδη δὲ καὶ ἄλλων τινῶν, ὡς οὐδέοι τοῦτο ποιεῖν.

P5 (A3) Cic. *De orat.* 3.34.139

[. . .] aut Philolaus Archytam Tarentinum?

PHILOLAUS

P3 (A4a) Plutarch, *On the Demon of Socrates*

For when the political associations of the Pythagoreans in the various cities, defeated in civil strife, had been expelled, and the Cylonians set fire to the house in which the survivors were meeting in Metapontum [cf. **PYTH. b T25**] and killed every one of them all together except for Philolaus and Lysis (who, being still young, managed to escape from the fire by their strength and agility), Philolaus fled to the Lucanians and from there found refuge among his other friends who had already gathered once again and defeated the Cylonians.

. . . *Suggesting a Later Dating (P4–P6)*

P4 (> A1a) Plato, *Phaedo*

[Socrates:] What is this, Cebes? Have you and Simmias, who have studied with Philolaus, not heard about such things? [. . .]

[Cebes:] I myself [. . .] heard Philolaus when he lived among us [scil. in Thebes], and certain other people earlier, saying that one must not do this [scil. kill oneself].

P5 (A3) Cicero, *On the Orator*

[. . .] and did not Philolaus [scil. teach] Archytas of Tarentum?

P6 (A2) Diog. Laert. 9.38

φησὶ δὲ καὶ Ἀπολλόδωρος ὁ Κυζικηνὸς [74 A2 DK]
Φιλολάῳ αὐτὸν συγγεγονέναι.

Practice of the Aulos (P7)

P7 (A7) Athen. *Deipn.* 4 184d–e

καὶ τῶν Πυθαγορικῶν δὲ πολλοὶ τὴν αὐλητικὴν ἥσκησαν, ὥς Εὐφράνωρ τε καὶ Ἀρχύτας Φιλόλαός τε ἄλλοι τε οὐκ ὀλίγοι [. . . = **ARCHY. P14**].

Philolaus' Book as Plato's Source? (P8)

P8 (< A1) Diog. Laert. 8.85

[. . . = **D1b**] ὁ φησιν Ἑρμιππος [Frag. 40 Wehrli] λέγειν τινὰ τῶν συγγραφέων Πλάτωνα τὸν φιλόσοφον παραγενόμενον εἰς Σικελίαν πρὸς Διονύσιον ὠνήσασθαι παρὰ τῶν συγγενῶν τοῦ Φιλολάου ἀργυρίου Ἀλεξανδρείων¹ μνῶν τετταράκοντα καὶ ἐντεῦθεν μεταγεγραφέναι τὸν Τίμαιον. ἕτεροι δὲ λέγουσι τὸν Πλάτωνα λαβεῖν αὐτά, παρὰ Διονυσίου παραιτησάμενον ἐκ τῆς φυλακῆς νεανίσκον ἀπηγμένον τῶν τοῦ Φιλολάου μαθητῶν.

¹ ἀλεξανδρινῶν vel -ηνῶν mss., corr. Knoepfler

PHILOLAUS

P6 (A2) Diogenes Laertius

Apollodorus of Cyzicus too says that he [i.e. Democritus] studied with Philolaus [cf. **ATOM. P21**].

Practice of the Aulos (P7)

P7 (> 44 A7) Athenaeus, *Deipnosophists*

Many Pythagoreans practiced the art of the *aulos*, like Euphranor, Archytas, Philolaus, and many others [cf. **ARCHY. P14**].

Philolaus' Book as Plato's Source? (P8)

P8 (< A1) Diogenes Laertius

Hermippus says concerning this [i.e. Philolaus' book, cf. **D1**] that a certain author reports that when Plato the philosopher came to Sicily to Dionysius, he bought it from Philolaus' relatives for forty Alexandrian silver minas and from it transcribed his *Timaeus*. Others say that Plato received it for having asked Dionysius that a young man, who was one of Philolaus' disciples, be released from prison [cf. **PYTHS. R50**].

PHILOLAUS [44 DK]

D

Philolaus' Book (D1)

D1 (< A1) Diog. Laert. 8.85

a

τοῦτόν φησι Δημήτριος ἐν Ὀμωνύμοις [Frag. 26 Mejer]
πρώτον ἐκδοῦναι τῶν Πυθαγορικῶν¹ περὶ² φύσεως, ὧν
ἀρχὴ ἦδε· [. . . = **D2**].

¹ post Πυθαγορικῶν <τὰ> Reiske, <βιβλία καὶ ἐπιγράψαι>
Diels ² περὶ F: om. BP

b

γέγραφε δὲ βιβλίον ἐν [. . . = **P8**].

The Principles (D2–D5)

D2 (B1) Diog. Laert. 8.85

ἀ¹ φύσις δ' ἐν τῷ κόσμῳ ἀρμόχθη ἐξ ἀπείρων τε καὶ
περαινόντων καὶ ὅλος <ὁ>² κόσμος καὶ τὰ ἐν αὐτῷ
πάντα.

PHILOLAUS

D

Philolaus' Book (D1)

D1 (< A1) Diogenes Laertius

a

Demetrius in his *Homonyms* says that he [i.e. Philolaus] was the first of the Pythagoreans to publish on nature [or: an *On Nature*]; this is its beginning: [. . . = **D2**].

b

He wrote [scil. only] one book [. . .].

The Principles (D2–D5)

D2 (B1) Diogenes Laertius [The beginning of his book, cf. **D1a**]

Nature in the world was fitted together [*harmozein*] out of unlimited things and limiting ones, both the whole world and everything in it.

¹ á Diels: α' BP¹: del P⁴: om. F

² <ó> Cobet

D3 (B2) Stob. 1.21.7a [ἐκ τοῦ Φιλολάου Περὶ κόσμου]

ἀνάγκα τὰ ἔοντα εἶμεν πάντα ἢ περαίνοντα ἢ ἄπειρα
 ἢ περαίνοντά τε καὶ ἄπειρα, ἄπειρα δὲ μόνον¹ οὐ κα
 εἶη.² ἐπεὶ τοίνυν φαίνεται οὐτ' ἐκ περαινόντων πάν
 των ἔοντα οὐτ' ἐξ ἀπείρων πάντων, δηλόν τᾶρα ὅτι
 ἐκ περαινόντων τε καὶ ἀπείρων ὅ τε κόσμος καὶ τὰ
 ἐν αὐτῷ συναρμόχθη. δηλοῖ δὲ καὶ τὰ ἐν τοῖς ἔρ
 γοις. τὰ μὲν γὰρ αὐτῶν ἐκ περαινόντων περαίνοντι,³
 τὰ δ' ἐκ περαινόντων τε καὶ ἀπείρων περαίνοντί⁴ τε
 καὶ οὐ περαίνοντι,⁵ τὰ δ' ἐξ ἀπείρων ἄπειρα φανέον
 ται.⁶

¹ post μόνον lac. pos. edd., Diels <ἢ περαίνοντα μό
 νον> ² οὐκ ἀεὶ mss., corr. Badham ³ περαίνοντι
 mss.: περαίνοντα Canter ⁴ περαίνοντί FP¹: περαίνοντά
 P² ⁵ περαίνοντι mss.: περαίνοντα Canter ⁶ φανέο
 νται Heeren: φαινέονται mss.: φαίνεται Usener

D4 (B3) Iambl. *In Nic.*, p. 7.24–25

ἀρχὰν γὰρ οὐδὲ τὸ γνωσούμενον ἐσσεῖται πάντων
 ἀπείρων ἔοντων.

D5 (< B6) Stob. 1.21.7d

περὶ δὲ φύσιος καὶ ἀρμονίας ᾧδε ἔχει· ἃ μὲν ἐστὼ
 τῶν πραγμάτων αἰδῖος ἔσσα καὶ αὐτὰ μὰν¹ ἃ φύσις
 θείαν τε καὶ οὐκ ἀνθρωπίνην ἐνδέχεται γνῶσιν,
 πλάν² γα ἢ ὅτι οὐχ οἶον τ' ἦν οὐθενὶ τῶν ἔοντων καὶ

D3 (B2) Stobaeus, *Anthology* [From Philolaus, *On the World*]

It is necessary that the things that are be all either limiting, or unlimited, or limiting and unlimited: but only unlimited they could not be. Since therefore they manifestly did not come either from all the limiting things nor from all the unlimited ones, it is clear then that the world and the things in it were fitted together (*sunharmozein*) out of both limiting things and unlimited ones. The effects make this clear too. For those things that come from limiting things limit, those that come from both limiting things and unlimited ones limit and do not limit, those that come from unlimited ones will show themselves to be unlimited.

D4 (B3) Iamblichus, *Commentary on Nicomachus'* Introduction to Arithmetic

There will not be anything at all that is known if all things are unlimited.

D5 (< B6) Stobaeus, *Anthology*

With regard to nature and harmony (*harmonia*), this is how things are: the being of things, which is eternal, and nature itself admit knowledge that is divine and not human, except that it would have been impossible for any of the things that exist and are

varia orthographica corr. edd.

¹ μὲν ms., corr. Usener

² πλέον ms., corr. Badham

γιγνωσκομένων³ ὑφ' ἀμῶν γενέσθαι,⁴ μὴ ὑπαρχού-
 σας τὰς ἐστούς⁵ τῶν πραγμάτων ἐξ ὧν συνέστα ὁ
 κόσμος καὶ τῶν περαινόντων καὶ τῶν ἀπείρων. ἐπεὶ
 δὲ ταῖ⁶ ἀρχαὶ ὑπάρχον οὐχ ὁμοῖαι οὐδ' ὁμόφυλοι
 ἔσσαι, ἤδη ἀδύνατον ἦς κα⁷ αὐταῖς⁸ κοσμηθῆναι, εἰ
 μὴ ἀρμονία ἐπεγένετο ὥτινιῶν ἂν τρόπῳ⁹ ἐγένετο.
 τὰ μὲν ὧν ὁμοῖα καὶ ὁμόφυλα ἀρμονίας οὐδὲν ἐπε-
 δέοντο, τὰ δὲ ἀνόμοια μὴδὲ ὁμόφυλα μὴδὲ ἴσο-
 ταχῆ¹⁰ ἀνάγκα τῇ τοιαύτῃ¹¹ ἀρμονίᾳ¹² συγκεκλεί-
 σθαι, εἰ¹³ μέλλοντι ἐν κόσμῳ κατέχεσθαι.

- ³ γιγνωσκομένον Usener ⁴ γενέσθαι E, Usener: γε-
 γνέσθαι F.: γεγενῆσθαι Burkert ⁵ τὰς ἐντοῦς ms., corr.
 Badham ⁶ τε ms., corr. Badham ⁷ καὶ ms., corr. Badham
⁸ αὐτοῖς ms., corr. Boeckh ⁹ τρόπων ms.: corr. Meineke
¹⁰ ἰσολαχῇ (vel ἰσοπαλῇ) Meineke: ἰσοτελῇ Heeren
¹¹ τὰ τοιαῦτα ms., corr. Badham ¹² ἀρμονίαις ms.,
 corr. Boeckh ¹³ ante εἰ hab. ms. ἦ, del. Huffman

Number and the Mathematical Sciences (D6–D12)

Number in General (D6–D9)

D6 (A7a) Plut. *Quaest. conv.* 8.2.1 718E

[. . .] μάλιστα δὲ γεωμετρία κατὰ τὸν Φιλόλαον¹ ἀρχὴ
 καὶ μητρόπολις οὔσα τῶν ἄλλων [scil. μαθημάτων]
 [. . .].

- ¹ φίλαον ms., corr. Hubert

known by us to come to be if the being of the things out of which the world is constituted, both the limiting ones and the unlimited ones, did not exist. But since the principles existed, not being similar nor related as kindred, it would have been impossible for them to be arranged in a world if a harmony (*harmonia*) had not supervened, in whatever way this came about. Therefore the things that are similar and related as kindred had no need at all of harmony, but as for the ones that are dissimilar and neither related as kindred nor †as equally fast†, it is necessary that these things be connected by this kind of harmony (*harmonia*) if they are going to maintain themselves in the world.¹

¹ Stobaeus' text continues with a passage that is also preserved by Nicomachus and that must be considered as independent (cf. D14), although the two texts are edited continuously as B6 DK.

Number and the Mathematical Sciences (D6–D12)

Number in General (D6–D9)

D6 (A7a) Plutarch, *Table Talk*

[. . .] geometry, which is, according to Philolaus, **the principle and mother city** of the other [scil. mathematical sciences] [. . .].

D7 (B4) Stob. 1.21.7b

καὶ πάντα γὰρ μὰν τὰ γινγνωσκόμενα ἀριθμὸν ἔχοντι.
οὐ γὰρ ὅτιῶν <οἰόν>¹ τε οὐδὲν οὔτε νοηθῆμεν οὔτε
γνωσθῆμεν ἄνευ τούτου.

¹ <οἰόν> Boeckh

D8 (A29) Sext. Emp. Adv. Math. 7.92

οἱ δὲ Πυθαγορικοὶ τὸν λόγον μὲν φασιν, οὐ κοινῶς
δέ, τὸν δὲ ἀπὸ τῶν μαθημάτων περιγινόμενον, καθά-
περ καὶ ὁ Φιλόλαος, θεωρητικόν τε ὄντα τῆς τῶν
ὄλων φύσεως ἔχειν τινὰ συγγένειαν πρὸς ταύτην,
ἐπεὶπερ ὑπὸ τοῦ ὁμοίου τὸ ὅμοιον καταλαμβάνεσθαι
πέφυκεν [. . .].

D9 (B5) Stob. 1.21.7c

ὁ γὰρ μὰν ἀριθμὸς ἔχει δύο μὲν ἴδια εἶδη, περισσὸν
καὶ ἄρτιον, τρίτον δὲ ἀπ' ἀμφοτέρων μιχθέντων,
ἀρτιοπέριττον. ἐκατέρω δὲ τῷ εἶδεος πολλαὶ μορφαί,
ἃς ἕκαστον αὐτὸ¹ σημαίνει.²

¹ αὐτὸ Huffman: αὐτ' αὐτὸ ms.
Heeren

² δημαίνει ms., corr.

D7 (B4) Stobaeus, *Anthology*

And certainly everything that is known possesses number. For it is not possible either to think or to know anything without this.

D8 (A29) Sextus Empiricus, *Against the Logicians*

The Pythagoreans say that it is reason [scil. that is the criterion], but not in general, but rather the one that comes from the mathematical sciences, as Philolaus too said; and since it studies the nature of the whole, it possesses a certain affinity with this latter, since by nature the similar is known by the similar [. . . = citation of **EMP. D207**].

D9 (B5) Stobaeus, *Anthology*

Number certainly possesses two proper species, odd and even, and a third species that comes from the mixture of both of these, even-odd. There are many forms of each of the two species, which each thing itself indicates.

EARLY GREEK PHILOSOPHY IV

Noteworthy Numbers (D10–D12)

The Monad (D10)

D10 (A10) Theon Sm. *Exp.*, p. 20.19–20

Ἀρχύτας δὲ καὶ Φιλόλαος ἀδιαφόρως τὸ ἐν καὶ μονάδα καλοῦσι καὶ τὴν μονάδα ἐν [= **ARCHY. D6**].

The Hebdomad (D11)

D11 (< B20) Io. Lyd. *Mens.* 2.12 (33.8–16 Wünsch)

οἱ γε μὴν Πυθαγόρειοι τῷ ἡγεμόνι τοῦ παντὸς τὴν ἐβδόμην ἀνατίθενται, τουτέστι τῷ ἐνί[. . .]. ὀρθῶς οὖν ἀμήτορα τὸν ἐπτὰ ἀριθμὸν ὁ Φιλόλαος προσηγόρευσε· μόνος γὰρ οὔτε γεννᾶν οὔτε γεννᾶσθαι πέφυκε. τὸ δὲ μήτε γεννῶν μήτε γεννώμενον ἀκίνητον.

The Decad (?) (D12)

D12 (ad B11) Theon Sm. *Exp.*, p. 106.10–11

[. . .] περὶ ἧς καὶ Ἀρχύτας ἐν τῷ Περί τῆς δεκάδος καὶ Φιλόλαος ἐν τῷ Περί φύσιος πολλὰ διεξίασιν.

Means (D13)

D13 (A24) Nicom. Geras. *Intr. arith.* 2.26.2 (135.10–17 Hoche)

τινὲς δὲ αὐτὴν ἀρμονικὴν καλεῖσθαι νομίζουσιν ἀκο-

PHILOLAUS

Noteworthy Numbers (D10–D12) *The Monad (D10)*

D10 (A10) Theon of Smyrna, *Aspects of Mathematics Useful for Reading Plato*

But Archytas and Philolaus [scil. unlike other authors] call without distinction the one monad too and the monad one.

The Hebdomad (D11)

D11 (< B20) John Lydus, *On the Months*

The Pythagoreans dedicate the seventh day to the leader of the whole, that is, to the One [. . .]. So it was correct for Philolaus to call the number seven ‘**motherless.**’ For this alone has the nature of not generating and of not being generated. But what does not generate and is not generated is immobile.

The Decad (?) (D12)

D12 (ad B11) Theon of Smyrna, *Aspects of Mathematics Useful for Reading Plato*

[. . .] both Archytas in his *On the Decad* and Philolaus in his *On Nature* have explained many things about it [scil. the decad].

Means (D13)

D13 (A24) Nicomachus, *Introduction to Arithmetic*

Some people think that it [i.e. the ‘subcontrary’ mean]

λούθως Φιλολάῳ ἀπὸ τοῦ παρέπεσθαι πάσῃ γεωμετρικῇ ἁρμονίᾳ, γεωμετρικὴν δὲ ἁρμονίαν φασὶ τὸν κύβον ἀπὸ τοῦ κατὰ τὰ τρία διαστήματα ἡρμόσθαι ἰσάκις ἴσα ἰσάκις· ἐν γὰρ παντὶ κύβῳ ἥδε ἡ μεσότης ἐνοπτρίζεται, πλευραὶ μὲν γὰρ παντὸς κύβου εἰσὶν ἰβ', γωνίαι δὲ η', ἐπίπεδα δὲ ζ'· μεσότης ἄρα ὁ η' τῶν ζ' καὶ τῶν ἰβ' κατὰ τὴν ἁρμονικὴν.

Musical Harmony (D14)

D14 (< B6) *Nicom. Harm.* 9 (p. 252.4–5, 13–14, 17–253.3 Jan)

ὅτι δὲ τοῖς ὑφ' ἡμῶν δηλωθεῖσιν ἀκόλουθα καὶ οἱ παλαιότατοι ἀπεφαίνοντο [. . .] δῆλον ποιεῖ Φιλόλαος ὁ Πυθαγόρου διάδοχος οὕτω πως ἐν τῷ πρώτῳ Φυσικῷ λέγων [. . .]. ἔχει δὲ οὕτως ἡ τοῦ Φιλολάου λέξις. “ἁρμονίας δὲ μέγεθος συλλαβὰ καὶ δι' ὀξειᾶν. τὸ δὲ δι' ὀξειᾶν μεῖζον τᾶς συλλαβᾶς ἐπογδόψ. ἔστι γὰρ ἀπὸ ὑπάτας εἰς μέσαν συλλαβὰ, ἀπὸ δὲ μέσας πότι νεάταν δι' ὀξειᾶν, ἀπὸ δὲ νεάτας ἐς τρίταν συλλαβὰ, ἀπὸ δὲ τρίτας ἐς ὑπάταν δι' ὀξειᾶν. τὸ δ' ἐν μέσῳ τρίτας καὶ μέσας ἐπόγδοον, ἃ δὲ συλλαβὰ ἐπίτριτον, τὸ δὲ δι' ὀξειᾶν ἀμιόλιον, τὸ διὰ πασᾶν δὲ διπλόον. οὕτως ἁρμονία πέντε ἐπόγδοα καὶ δύο

should be called 'harmonic,' following Philolaus, because it follows every geometrical harmony, and they call the cube a 'geometrical harmony' because it has been harmonized in the three dimensions, equal multiplied by equal multiplied by equal; for one sees this mean in every cube: in fact the sides are 12, the angles 8, and the surfaces 6. So 8 is the mean of 6 and 12 by virtue of the harmonic proportion.

See also **HIPPAS. D6; ARCHY. D8**

Musical Harmony (D14)

D14 (< B6) Nicomachus, *Harmonics*

The fact that the statements of the most ancient authors agree with what we have shown [. . .], is shown clearly by what Philolaus, the successor of Pythagoras, says in the first book of his *On Nature* [. . .]. This is what Philolaus says, quoted exactly: **The magnitude of harmony is the fourth (*syllaba*) and the fifth (*di' oxeian*); the fifth is greater than the fourth by a tone [literally: by 9/8]. For from the lowest string (*hypatê*) to the middle string (*mesê*) there is a fourth, from the middle string to the highest string (*neatê*) a fifth, from the highest string to the third string a fourth, and from the third string to the lowest string a fifth. What is in the middle between the highest string and the third string is a tone [literally: 9/8], the fourth is [scil. the ratio] 4/3, the fifth [scil. the ratio] 3/2, and the octave [scil. the ratio] 2/1. And so the harmony is composed of five tones [literally: 9/8] and two semitones, the fifth**

διέσεις,¹ δι' ὅξειαν τρία ἐπόγδοα καὶ διέσεις, συλλαβὰ δὲ δὺ' ἐπόγδοα καὶ διέσεις.”

¹ ἐπόγδοα καὶ δύο διέσεις Nicom. p. 264.3–4: ἐπογδόων καὶ δυοῖν διέσεων Nicom. p. 253

*Generation and Destruction of the
Cosmos (D15–D18)*

D15 (B7) Stob. 1.21.8

τὸ πρῶτον ἀρμοσθέν, τὸ ἐν ἐν τῷ μέσῳ τᾶς σφαίρας,
ἐστία καλεῖται.

D16 (< A9) Procl. *In Tim.* 1 ad 24e (vol. 1, p. 176.28–30 Diehl)

[. . .] καὶ εἰς ἀποτελεῖται κόσμος ἐξ ἐναντίων ἡρμοσμένος, ἐκ περαινόντων τε καὶ ἀπείρων ὑφεστηκῶς κατὰ τὸν Φιλόλαον.

D17 (B17) Stob. 1.15.7

[Φιλολάου Βάκχαι.]

ὁ κόσμος εἰς ἐστίν. ἤρξατο δὲ γίγνεσθαι ἄχρι¹ τοῦ μέσου, καὶ ἀπὸ τοῦ μέσου εἰς τὸ² ἄνω διὰ τῶν αὐτῶν τοῖς κάτω, <καὶ>³ ἐστὶ τὰ ἄνω τοῦ μέσου ὑπεναντίως κείμενα τοῖς κάτω. τοῖς γὰρ κάτω τὸ κατωτάτω

¹ ἄχρι mss.: ἀπὸ Meineke

² εἰς τὸ mss.: τὰ Boeckh

³ <καὶ> Wachsmuth

of three tones [literally: 9/8] and one semitone, the fourth of two tones [literally: 9/8] and one semitone.¹

¹ The position assigned to the third cord in this fragment is anomalous (see Huffman, pp. 154–55).

*Generation and Destruction of the
Cosmos (D15–D18)*

D15 (B7) Stobaeus, *Anthology*

The first thing fitted together (*harmozein*), the one in the middle of the sphere, is called ‘hearth’ (*hestia*).

D16 (< A9) Proclus, *Commentary on Plato’s Timaeus*

[. . .] and according to Philolaus, the world, one only, is produced by being fitted together (*harmozein*) out of contraries, being constituted out of limiting things and unlimited ones.

D17 (B17) Stobaeus, *Anthology*

[The *Bacchants* of Philolaus:]¹

The world is one. It began to come to be just at (?) the middle and from the middle upward in the same way as downward, <and> the things above the middle are arranged in a contrary way to those below it. For

¹ The authenticity of this fragment has been contested, particularly because of what is thought to be a parallel passage in Plato’s *Timaeus* (62c3), but it is defended by Huffman (pp. 215–19), who nonetheless acknowledges that the title of the work from which it is thought to derive is doubtless a forgery (p. 418).

μέγα⁴ ἐστὶν ὥσπερ τὸ ἀνωτάτω, καὶ τὰ ἄλλα ὡσαύ-
τως. πρὸς γὰρ τὸ μέσον κατὰ ταῦτά ἐστιν ἐκάτερα,
ὅσα μὴ μετενήμεκται.

⁴μέγα mss.: μέρος Wachsmuth: τοῖς γὰρ κατωτάτω τὰ
μέσα ἐστὶν Diels, alii alia

D18 (A18) Aët. 2.5.3 (Ps.-Plut., Stob.) [πόθεν τρέφεται
ὁ κόσμος]

Φιλόλαος διττὴν εἶναι τὴν φθοράν, τὸ μὲν ἐξ οὐρανοῦ
πυρὸς ῥύνεντος, τὸ δ' ¹ ἐξ ὕδατος σεληνιακοῦ περι-
στροφῇ τοῦ ἀέρος ἀποχυθέντος· καὶ τούτων εἶναι τὰς
ἀναθυμιάσεις τροφὰς τοῦ κόσμου.

¹ τὸ μὲν . . . τὸ δ' . . . Stob. 1.21.6d: τότε μὲν . . . τότε δ'
Plut., Stob. 1.20.1g

Cosmology (D19–D24)
The Order of the World (D19)

D19 (< A16) Aët. 2.7.7 (Stob.) [περὶ τάξεως τοῦ κόσμου]

Φιλόλαος πῦρ ἐν μέσῳ περὶ τὸ κέντρον, ὅπερ ἐστὶν
τοῦ παντὸς καλεῖ καὶ Διὸς οἶκον [. . .]· καὶ πάλιν πῦρ
ἕτερον ἀνωτάτω, τὸ περιέχον. πρῶτον δ' εἶναι φύσει
τὸ μέσον, περὶ δὲ τοῦτο δέκα σώματα θεῖα χορεύειν,

below, the lowest part is large like [i.e. as large as?] the highest one, and similarly for the other things. For with regard to the middle, both of them are identical, except that they are inverted.

D18 (A18) Aëtius

Philolaus: there is a double destruction [scil. of the world], on the one hand coming from the heavens, when fire flows down, on the other coming from the lunar water, when air spreads out because of the rotation. And the exhalations of these are what the world is nourished with.¹

¹ This testimonium, which is not free of obscurities (e.g. regarding the 'lunar water'), is sometimes considered suspect because the doctrine of a double destruction appears in Plato (cf. *Timaeus* 22a–d) and the theory of the two evaporations in Aristotle. It is defended by Huffman (pp. 215–19).

Cosmology (D19–D24)
The Order of the World (D19)

D19 (< A16) Aëtius

Philolaus: fire in the middle around the center, which he calls the '**hearth**' of the whole and '**Zeus' house**' [. . .]; and again there is another fire very high up, what surrounds [scil. the whole]. The first thing by nature is the middle, and around this ten divine bodies move as a cho-

οὐρανόν, τοὺς ἐ¹ πλανήτας, μεθ' οὓς ἥλιον, ὑφ' ᾧ σε-
λήνην, ὑφ' ἧ τὴν γῆν, ὑφ' ἧ τὴν ἀντίχθονα, μεθ' ᾧ
σύμπαντα τὸ πῦρ, ἐστίας περι² τὰ κέντρα τάξιν ἐπ-
έχον [. . .].

¹ τοὺς ἐ Diels: τε F, om. P: <πέν>τε Mansfeld et Runia 2.7.6

² περι Meineke: ἐπὶ mss

The Earth (D20–D21)

D20 (A17) Aët. 3.11.3 (Ps.-Plut.) [περὶ θέσεως γῆς]

Φιλόλαος ὁ Πυθαγόρειος τὸ μὲν πῦρ μέσον, τοῦτο
γὰρ εἶναι τοῦ παντὸς ἐστίαν· δευτέραν δὲ τὴν ἀντί-
χθονα, τρίτην δ' ἣν οἰκοῦμεν γῆν ἐξ ἐναντίας κει-
μένην τε καὶ περιφερομένην τῇ ἀντίχθονι· παρ' ᾧ καὶ
μὴ ὁρᾶσθαι ὑπὸ τῶν ἐν τῇδε τοὺς ἐν ἐκείνῃ.

D21 (A21) Aët. 3.13.2 (Ps.-Plut.) [περὶ κινήσεως γῆς]

Φιλόλαος δ' ὁ Πυθαγόρειος κύκλῳ περιφέρεσθαι περὶ
τὸ πῦρ κατὰ κύκλον λοξὸν¹ ὁμοιοτρόπως ἡλίῳ καὶ
σελήνῃ.

¹ κύκλου λοξοῦ mss., corr. Reiske

rus: the heavens, the five planets, after these the sun, under this the moon, under this the earth, under this the counter-earth, and after all of these the fire that occupies the position of the hearth around the center [. . .].¹

¹ Together with Huffman (p. 237 and pp. 395–400), we omit those portions of this text that derive most probably from pseudo-Pythagorean insertions.

The Earth (D20–D21)

D20 (A17) Aëtius

Philolaus the Pythagorean: fire is in the middle (for this is the **hearth** of the whole), in second place the counter-earth, in third the earth we inhabit, which lies and revolves opposite to the counter-earth; and for this reason the people in that one are not seen by the ones in this one.

D21 (A21) Aëtius

Philolaus the Pythagorean: it [i.e. the earth] revolves in a circle around the fire following the ecliptic in the same way as the sun and moon.

EARLY GREEK PHILOSOPHY IV

The Sun and Moon (D22–D23)

D22 (< A19) Aët. 2.20.12 (Ps.-Plut.; cf. Stob.) [περὶ οὐσίας ἡλίου]

Φιλόλαος ὁ Πυθαγόρειος ὑαλοειδῆ, δεχόμενον μὲν τοῦ ἐν τῷ κόσμῳ πυρὸς τὴν ἀνταύγειαν, διηθοῦντα δὲ πρὸς ἡμᾶς τό τε φῶς καὶ τὴν ἀλέαν¹ [. . .].

¹ τό τε φῶς καὶ τὴν ἀλέαν Stob.: τό φῶς Plut.

D23 (A20) Aët. 2.30.1 (Stob.) [περὶ ἐμφάσεως αὐτῆς [scil. τῆς σελήνης] καὶ διὰ τί γεώδης φαίνεται]

τῶν Πυθαγορείων τινὲς μὲν, ὧν ἔστι Φιλόλαος, τὸ γεωφανὲς αὐτῆς εἶναι διὰ τὸ περιοικεῖσθαι τὴν σελήνην, καθάπερ τὴν παρ' ἡμῖν γῆν, ζώοις καὶ φυτοῖς μείζουσι καὶ καλλίουσιν. εἶναι γὰρ πεντεκαίδεκαπλάσια τὰ ἐπ' αὐτῆς ζῶα τῇ δυνάμει, μηδὲν περιττωματικὸν ἀποκρίνοντα, καὶ τὴν ἡμέραν τοσαύτην τῷ μήκει.

The Great Year (D24)

D24 (A22) Cens. *Die nat.* 18.8, 19.2

est et Philolai Pythagorici annus ex annis quinquaginta novem, in quo sunt menses intercalares viginti et unus [. . .]. Philolaus annum naturalem dies habere prodidit CCCLXIII et dimidiatum.

PHILOLAUS

The Sun and Moon (D22–D23)

D22 (< A19) Aëtius

Philolaus the Pythagorean: the sun is like glass: on the one hand it receives the reflection of the fire that is in the world, on the other hand it filters light and heat toward us [. . .].¹

¹ The continuation of this notice constitutes an exegesis of Philolaus' theory in terms that recall Empedocles' theory of the two suns (cf. **EMP. D126**).

D23 (A20) Aëtius

Some of the Pythagoreans, including Philolaus: the moon has the appearance of an earth because it is inhabited, just like our earth, by animals and plants that are larger and more beautiful. For the animals that live there are fifteen times greater in strength and do not produce any excrement; and the length of the day is corresponding [i.e. fifteen times longer].

The Great Year (D24)

D24 (A22) Censorinus, *The Birthday*

There is also a year of Philolaus the Pythagorean, consisting of fifty-nine years, which includes twenty-one intercalary months [. . .]. Philolaus declared that the natural year has 364 and a half days.

*Embryology and Medicine (D25–D26)***D25** Anon. Lond.**a** (A27) 18.8–19.1

Φιλόλαος | δὲ ὁ Κροτ[ωνιά]της συνεστάναι φησὶν τὰ
 ἡμέ[10]τερα σώμ[ατα ἐκ] θερμοῦ. ἀμέτοχα γὰρ αὐτὰ
 εἶναι | ψυχροῦ, ὑπομιμνήσκων ἀπὸ τινων τοιούτων |
 τὸ σπέρμ[α εἶναι θερ]μόν, κατασκευαστικὸν δὲ | τοῦτο
 τ[οῦ ζῴου]· καὶ ὁ τόπος δέ, εἰς ὃν | ἡ καταβολ[ή—
 μήτρ]α δὲ αὕτη—ἐστὶν θερμότερα | [15] καὶ ἐοικ[υῖα
 ἐκ]εῖν· τὸ δὲ ἐοικός τι καὶ ταῦτο δύναται ὧς εἰκοῖν· ἐπεὶ
 δὲ τὸ κατασκευάζ[ον ἀμέ]τροχόν ἐστιν ψυχροῦ καὶ ὁ
 τόπος | δέ, ἐν ᾧ [ἡ καταβολ]ή, ἀμέτοχος ἐστὶν ψυχροῦ,
 | δῆλον [ὅτι καὶ τὸ] κατασκευαζόμενον ζῶον | τοιοῦτο[ν
 γίνε]ται. εἰς δὲ τούτου τὴν | [20] κατασκ[ευὴν ὑ]πομνή-
 σει προσχρήται τοιαύτη· με[τὰ γάρ], φησὶν τὴν ἔκτε-
 ξιν εὐθέως | τὸ ζῶιον ἐπισπᾶται τὸ ἐκτὸς πνεῦμα |
 ψυχρὸν ὃν εἶτα πάλιν καθαπερὶ χρέος | ἐκπέμπε[ι]
 αὐτό· διὰ τοῦτο δὴ καὶ ὄρεξις | [25] τοῦ ἐκτὸς πνεύμα-
 τος, ἵνα τῇ | ἐπεισάκτῃ τοῦ πνεύματος ὀλκῇ θερ-
 μότ[ερα] ὑπάρχοντα τὰ ἡμέτερα σώματα πρὸς αὐτοῦ |
 καταψύχεται. καὶ τὴν μὲν σύστασιν | τῶν ἡμετέρων
 σωμάτων ἐν τούτοις φησὶν. |

[30] λέγει δὲ γίνεσθαι τὰς νόσους διὰ τε χολὴν |
 καὶ αἷμα καὶ φλέγμα, ἀρχὴν δὲ γίνεσθαι | τῶν νόσων
 ταῦτα ἀποτελεῖσθαι | δέ φησιν τὸ μὲν αἷμα παχὺ μὲν
 ἔσω παραθλιβομένης τῆς σαρκός, λεπτόν | [35] δὲ

D25 Anonymous of London**a** (A27)

Philolaus of Croton says that our [10] bodies are composed out of warmth, for they have no share in cold. He suggests this on the basis of the following considerations: that semen is warm, and it is this that produces the living being; and the place into which it is ejaculated (this is the uterus) is quite warm [15] and resembles this, and what resembles something has the same capacity as what it resembles. But since what produces has no share in cold, and since the place in which there is ejaculation has no share in cold, it is clear that the living being that is produced is of the same sort. But [20] to establish this, he also makes use of the following consideration: immediately after birth, the animal breathes in the air outside, which is cold; and then in turn it breathes it out, like a debt. For this reason there is also a desire [25] for the air outside: so that by the inhalation of air our bodies, which are too warm, are cooled down by it. And he says that the composition of our bodies depends upon these processes.

[30] As for illnesses, he says that they come about because of bile, blood, and phlegm, and that the origin of illnesses is the following: he says that the blood becomes thick when the flesh compresses it inward and becomes

γίνεσθαι διαιρουμένων τῶν ἐν τῇ σαρκὶ ἀγγείων | τὸ
 δὲ φλέγμα συνίστασθαι ἀπὸ τῶν ὀμβρων φησίν. λέ-
 γει δὲ τὴν χολήν ἰχώρα | εἶναι τῆς σαρκός. παράδο-
 ξόν τε αὐτὸς | ἀνὴρ ἐπὶ τούτου κινεῖ· λέγει γὰρ μὴδὲ
 τε[40]τάχθα[ι] ἐπὶ τ[ῷ] ἥπατι χολήν, ἰχώρα μέντοι
 τῆς σαρκὸς εἶναι τὴν χολήν. τό τ' αὖ | φλέγμα τῶν
 πλείστων ψυχρὸν εἶναι λεγόντων αὐτὸς θερμὸν τῇ
 φύσει ὑπ[ο]τίθεται· ἀπὸ γὰρ τοῦ φλέγειν φλέγμα
 εἰρήσθαι | [45] ταύτῃ δὲ καὶ τὰ φλεγμαίνον[τα] | μετ-
 οχῇ τοῦ φλέγματος φλεγμ[α]ίνει. καὶ ταῦτα μὲν δὴ
 ἀρχὰς τῶν νό[σ]ων | ὑπ[ο]τίθεται, [σ]υνεργὰ δὲ ὑπερ-
 βολ[άς] | τε θερμασίας, τροφῆς, καταψύξεω[ς καὶ] |
 [19.1] ἐνδείας τῶν τούτ[ο]ις [παραπλησίων].

plurima rest. et corr. Diels 18.48–19.1 ὑπερβολ[ας] τε
 <καὶ ἐνδείας> θερμασίας . . . {ἐνδείας} τ(ῶν) . . . conl. Manetti
 19.1 ἐνδείας <τούτων ἦ> H. Fränkel apud Diels

b (A28) 20.21–23

καὶ σχεδὸν [οὔτω]ς | ὁ Φιλόλαος οἶεται μὴ εἶναι ἐν
 ἡμῖν χολῇ[ν] | οἰκείαν.

23 οἰκείαν legit Manetti: ἦ | ἀ[χρ]είαν Diels

D26 (B13) Ps.-Iambl. *Theol.*, pp. 25.17–26.3

καὶ τέσσαρες ἀρχαὶ τοῦ ζῶον τοῦ λογικοῦ, ὥσπερ καὶ
 Φιλόλαος ἐν τῷ Περὶ φύσεως λέγει, ἐγκέφαλος καρ-
 δία ὀμφαλὸς αἰδοῖον· κεφαλὰ μὲν νόον, καρδία δὲ
 ψυχᾶς καὶ αἰσθήσιος, ὀμφαλὸς δὲ ριζώσιος καὶ

thin [35] when the vessels in the flesh are divided. He says that the phlegm is composed out of fluids (?).¹ He says that bile is a liquid that comes from the flesh. The same man says something paradoxical on this matter: for he says that bile is not [40] located in the liver, and yet that bile is a liquid that comes from the flesh. And again, while most people say that phlegm is cold, he himself posits that it is warm by nature. For the term 'phlegma' derives from *phlegein* [i.e., to burn]. [45] And inflammations (*ta phlegmainonta*) are inflamed (*phlegmainei*) because they have a share in phlegm. And this is what he indicates as the origin of illnesses, to which excesses of warmth, of nourishment, and of cold contribute, as well as [19.1] deficiencies of things similar to them.

¹ Diels understands the term to designate urine.

b (A28)

And in almost the same way [scil. as the medical writer Petronius of Aegina], Philolaus thinks that the bile in us is not inherent.

D26 (B13) Ps.-Iamblichus, *Theology of Arithmetic*

There are four principles of the animal endowed with reason, as Philolaus too says in his *On Nature*, the brain, the heart, the navel, the genitals: **the head** [scil. is the principle] **of intelligence, the heart of the soul and sensation, the navel of rootedness and first growth, the**

ἀναφύσιος τοῦ πρώτου, αἰδοῖον δὲ σπέρματος καταβολᾶς τε καὶ γεννήσιος. ἐγκέφαλος δὲ <ἔχει>¹ τὰν ἀνθρώπων ἀρχάν, καρδία δὲ τὰν ζώνον, ὀμφαλὸς δὲ τὰν φυτοῦ, αἰδοῖον δὲ τὰν ξυναπάντων πάντα γὰρ ἀπὸ σπέρματος καὶ θάλλοντι καὶ βλαστάνοντι.

¹ <ἔχει> Huffman: <σαμαίνει> Boeckh

Soul and Thought (D27–D28)

D27 (A23) Macr. *In Somn.* 1.14.19

Pythagoras et Philolaus harmoniam [scil. animam esse dixerunt] [. . .].

D28 (B16) Arist. *EE* 2.8 1225a30–33

ὥστε καὶ διάνοιαι τινες καὶ πάθη οὐκ ἐφ' ἡμῖν εἰσιν, ἣ πράξεις αἱ κατὰ τὰς τοιαύτας διανοίας καὶ λογισμούς, ἀλλ' ὥσπερ Φιλόλαος ἔφη εἶναι τινὰς λόγους κρείττους ἡμῶν.

*Appendix: Some Examples of Suspect Fragments
and Reports (D29–D35)*

D29 (A11) Luc. *Laps.* 5

εἰσὶ δὲ οἱ καὶ τὴν τετρακτύν, τὸν μέγιστον ὄρκον αὐτῶν, ἣ τὸν ἐντελῆ αὐτοῖς ἀριθμὸν ἀποτελεῖ, ἥδη καὶ¹ ὑγιείας ἀρχὴν ἐκάλεσαν ὧν καὶ Φιλόλαός ἐστι.

genitals of the ejaculation of semen and of generation. The brain <possesses> the principle of the human being, the heart that of the animal, the navel that of the plant, the genitals that of all of them. For all things flourish and develop out of seed.

Soul and Thought (D27–D28)

D27 (A23) Macrobius, *Scipio's Dream*

Pythagoras and Philolaus [scil. said that the soul is] a harmony [. . .].

D28 (B16) Aristotle, *Eudemian Ethics*

So that some thoughts and passions are not in our power, nor the actions that are in conformity with such thoughts and reasonings, but, as Philolaus said, **“some reasons (logoi) are stronger than we are.”**

*Appendix: Some Examples of Suspect Fragments
and Reports (D29–D35)¹*

¹ These texts are classified according to the chronological order of the sources.

D29 (A11) Lucian, *A Slip of the Tongue in Greeting*

*Some of them [i.e. of the Pythagoreans] also called the tetraktys—their greatest oath, which produces their perfect number—the “**principle of health**”; among them is Philolaus.*

¹ ἀποτελεῖν οἱ δὲ καὶ mss., corr. Marcilius: (ἦν . . .) ἀποτελεῖν οἷονταὶ τὸν > δέκα Diels

D30 (B14) Clem. Alex. *Strom.* 3.17.1

ἄξιον δὲ καὶ τῆς Φιλολάου λέξεως μνημονεύσαι· λέγει γὰρ ὁ Πυθαγόρειος ὧδε· “μαρτυρέονται δὲ καὶ οἱ παλαιοὶ θεολόγοι τε καὶ μάντιες, ὥς διὰ τινος τιμωρίας ἡ ψυχὰ τῷ σώματι συνέζευκται καὶ καθάπερ ἐν σήματι τούτῳ τέθραπται.”

D31 (A14) Plut. *Is. et Os.* 30 363A

φαίνονται δὲ καὶ οἱ Πυθαγορικοὶ τὸν Τυφῶνα δαιμονικὴν ἡγούμενοι δύναμιν· λέγουσι γὰρ ἐν ἀρτίῳ μέτρῳ ἕκτῳ καὶ πεντηκοστῷ¹ γεγονέναι Τυφῶνα· καὶ πάλιν τὴν μὲν τοῦ τριγώνου <γωνίαν>² Ἄιδου καὶ Διονύσου καὶ Ἄρεος εἶναι· τὴν δὲ τοῦ τετραγώνου Ῥέας καὶ Ἀφροδίτης καὶ Δήμητρος καὶ Ἑστίας καὶ Ἥρας· τὴν δὲ τοῦ δωδεκαγώνου Διός· τὴν δὲ <τοῦ>³ ἑκκαί- πεντηκονταγωνίου⁴ Τυφῶνος, ὥς Εὐδοξος ἱστορήκεν [Frag. 293 Lasserre].

¹ ἐν ἀρτίῳ μέτρῳ ἕκτῳ καὶ πεντηκοστῷ] ἐν τετάρτῳ μέτρῳ <τῶν> ἕξ καὶ πεντήκοντα Holwerda ² <γωνίαν> Kranz
³ <τοῦ> Reiske ⁴ ὁκτωκαί πεντηκονταγωνίου mss., corr. Xylander

D32 (< A25) Porph. *In Ptol. Harm.* 5

[. . .] τινὲς τῶν μετ’ αὐτὸν διάστημα ἐκάλεσαν εἶναι ὑπεροχὴν, ὥς Αἰλιανὸς ὁ Πλατωνικός· καὶ Φιλόλαος δ’ ἐπὶ πάντων τῶν διαστημάτων <ταύτην εἴληφε τὴν>¹ προσηγορίαν [. . .].

D30 (B14) Clement of Alexandria, *Stromata*

It is worth mentioning also what Philolaus said. For the Pythagorean speaks as follows: "The ancient theologians and the seers too provide testimony that the soul is bound to the body because it suffers certain punishments and is buried in it as in a tomb."

D31 (A14) Plutarch, *On Isis and Osiris*

The Pythagoreans evidently think that Typhon is a demonic power. For they say that Typhon was born in the even measure fifty-six. And in turn the <angle> of the triangle belongs to Hades, Dionysus, and Ares; that of the square to Rhea, Aphrodite, Demeter, Hestia, and Hera; that of the dodecagon to Zeus; and that of the fifty-six-sided polygon to Typhon, as Eudoxus has reported.

D32 (< A25) Porphyry, *Commentary on Ptolemy's Harmonics*

[. . .] some of those who came after him [i.e. Eratosthenes] gave to the interval the name of 'excess,' like Aelian the Platonist; and Philolaus <applies this> name to all the intervals [. . .].

¹ <ταύτην εἴληφε τήν> Boeckh

D33 (cf. A14) Procl. *In Eucl.*

a p. 130.8–14

καὶ γὰρ παρὰ τοῖς Πυθαγορείοις εὐρήσομεν ἄλλας
γωνίας ἄλλοις θεοῖς ἀνακειμένας, ὥσπερ καὶ ὁ Φι-
λόλαος πεποίηκε τοῖς μὲν τὴν τριγωνικὴν γωνίαν τοῖς
δὲ τὴν τετραγωνικὴν ἀφιερώσας, καὶ ἄλλας ἄλλοις
καὶ τὴν αὐτὴν πλείοσι θεοῖς καὶ τῷ αὐτῷ πλείους,
κατὰ τὰς διαφόρους ἐν αὐτῷ δυνάμεις ἀνείς.

b p. 174.2–16

δεῖ δὲ μὴ λανθάνειν ὅπως τὴν μὲν τριγωνικὴν γωνίαν
ὁ Φιλόλαος τέτταρσιν ἀνῆκεν θεοῖς, τὴν δὲ τετραγω-
νικὴν τρισίν, ἐνδεικνύμενος αὐτῶν τὴν δι' ἀλλήλων
χώρησιν καὶ τὴν ἐν πᾶσι πάντων κοινωνίαν τῶν τε
περισσῶν ἐν τοῖς ἀρτίοις καὶ τῶν ἀρτίων ἐν τοῖς
περισσοῖς. τριάς οὖν τετραδικὴ καὶ τετράς τριαδική¹
τῶν τε γονίμων μετέχουσιν καὶ ποιητικῶν ἀγαθῶν
τὴν ὅλην συνέχουσι τῶν γενητῶν διακόσμησιν. ἀφ'
ᾧ ἢ δυωδεκάς εἰς μίαν μονάδα τὴν τοῦ Διὸς ἀρχὴν
ἀνατείνεται. τὴν γὰρ τοῦ δωδεκαγώνου γωνίαν Διὸς
εἶναί φησιν ὁ Φιλόλαος, ὡς κατὰ μίαν ἔνωσιν τοῦ
Διὸς ὅλον συνέχοντος τὸν τῆς δυωδεκάδος ἀριθμόν.
ἡγείται γὰρ καὶ παρὰ τῷ Πλάτῳ δυωδεκάδος ὁ Ζεὺς
καὶ ἀπολύτως ἐπιτροπεύει τὸ πᾶν.

¹ καὶ τετράς τριαδικὴ om. MB₃G, secl. Heiberg

D33 (cf. A14) Proclus, *Commentary on Euclid's Elements of Geometry***a**

For among the Pythagoreans we shall find that different angles are dedicated to different gods, as Philolaus has done in consecrating the angle of the triangle to some gods, the angle of the square to other ones, and others to other ones, and referring the same angle to a plurality of gods and a plurality of angles to the same god, according to the different powers that are in it.

b

It must be borne in mind that Philolaus dedicated the angle of the triangle to four gods, and the angle of the square to three, demonstrating their progression through one another and the participation of all in all, of the odd in the even as of the even in the odd. So a tetradic triad and a triadic tetrad, which participate in the generative and productive good things, hold together the whole cosmic organization of generated things. The number twelve, which is their product, extends all the way to the one monad, the reign of Zeus. For Philolaus says that the angle of the dodecagon belongs to Zeus, since he thinks that Zeus holds together in a single unity the totality of the number twelve. For in Plato too, Zeus is at the head of the twelve and governs the whole without hindrance [cf. Plato, Phaedrus 246e–247a].

D34 (A14) Dam. *In Parm.* 2.127.7, p. 100.7–21

διὰ τί γὰρ τῷ μὲν τὸν κύκλον ἀνιέρουν οἱ Πυθαγόρειοι, τῷ δὲ τρίγωνον, τῷ δὲ τετράγωνον, τῷ δὲ ἄλλο καὶ ἄλλο τῶν εὐθυγράμμων σχημάτων,¹ ὥς δὲ καὶ μικτῶν, ὡς τὰ ἡμικύκλια τοῖς Διοσκούροις; πολλάκις δὲ τῷ αὐτῷ ἄλλο καὶ ἄλλο ἀπονέμων κατ' ἄλλην ιδιότητα καὶ ἄλλην, ὃ Φιλόλαος ἐν τούτοις σοφός. καὶ μήποτε, ὡς καθόλου εἰπεῖν, τὸ μὲν περιφερὲς κοινὸν σχῆμά ἐστιν πάντων τῶν νοερῶν θεῶν ἢ νοεροί, τὰ δὲ εὐθύγραμμα ἴδια ἐκάστων ἄλλα ἄλλων κατὰ τὰς τῶν ἀριθμῶν, τῶν γωνιῶν καὶ τῶν πλευρῶν ιδιότητας· οἷον Ἀθηνᾶς μὲν τὸ τρίγωνον, Ἑρμοῦ δὲ τὸ τετράγωνον· ἤδη δέ, φησὶν ὁ Φιλόλαος, καὶ τοῦ τετραγώνου ἥδε μὲν ἡ γωνία τῆς Ῥέας, ἥδε δὲ τῆς Ἥρας, ἄλλη δὲ ἄλλης θεοῦ· καὶ ὅλως² ἐστὶν θεολογικὸς ὁ³ περὶ τῶν σχημάτων ἀφορισμός.

¹ τῶν ante σχημάτων secl. Diels ² ὅλος ms., corr. Schöne
³ ὁ θεολογικὸς ms., corr. Schöne

D35 (< A26) Boeth. *Mus.* 3.5

Philolaus vero Pythagoricus alio modo tonum dividere temptavit, statuens scilicet primordium toni ab eo numero, qui primus cybum a primo impari, quod maxime apud Pythagoricos honorabile fuit, efficeret [. . .].

D34 (A14) Damascius, *Commentary on Plato's Parmenides*

For why did the Pythagoreans dedicate the circle to this one [scil. god], the triangle to that one, the square to that one, one or another rectilinear figure to that one, and likewise the mixed figures, like the semicircle to the Dioscuri? Inasmuch as he often attributes to the same one one figure or another, as a function of one individual property or another, Philolaus is wise in these matters. And perhaps, to put it more generally, the circle is the figure that is in common to all the intellectual gods insofar as they are intellectual, and the rectilinear figures are peculiar to each one, each one for another, as a function of the individual properties of the numbers, angles, and sides: for example, the triangle belongs to Athena, the square to Hermes; but, says Philolaus, this angle of the square belongs to Rhea, that one to Hera, another one to another god; and in general the determination regarding the figures is theological.

D35 (< A26) Boethius, *Fundamentals of Music*

But Philolaus the Pythagorean tried to divide the tone in a different way, positing as principle of the tone the number that produces the first cube of the first odd number [i.e. $27 = 3^3$], which was especially honored by the Pythagoreans [...].

13. EURYTUS [EUR.]

A disciple of Philolaus, whom Plato is said to have visited at the same time as he visited Archytas, Eurytus is known essentially from Aristotle's and Theophrastus' descriptions of a procedure of his that was intended to attribute a number to an object—a procedure that provokes a certain perplexity and surely underlines the very real difficulty of assigning a precise meaning to one of the fundamental tenets of early Pythagoreanism.

BIBLIOGRAPHY

See the titles listed in the General Introduction to Chapters 10–18.

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Eurytus' Procedure (D1–D2)

EURYTUS [45 DK]

P

Origin (P1–P4)

From Metapontum or Tarentum . . . (P1–P3)

P1 (< 58A.) Iambl. VP 267

a

Μεταποντῖνοι [. . .] Εὐρυτος [. . .] [cf. **PYTH. b T30[2]**].

b

Ταραντῖνοι [. . .] Εὐρυτος [. . .] [cf. **PYTH. b T30[5]**].

P2 (cf. 45.1) Iambl. VP 266

ζηλωτὰς δὲ γράφειν γενέσθαι τῶν ἀνδρῶν [. . .] <έν>¹
Μεταποντίῳ δὲ [. . .] Εὐρυτον [. . .].

¹ <έν> Arcerius

EURYTUS

P

Origin (P1–P4)

From Metapontum or from Tarentum . . . (P1–P3)

P1 (< 58A.) Iamblichus, *Life of Pythagoras*

a

From Metapontum: [. . .] Eurytus [. . .].

b

From Tarentum: [. . .] Eurytus [. . .].

P2 (cf. 45.1) Iamblichus, *Life of Pythagoras*

He [scil. Diodorus of Aspendus] writes that disciples of these men [i.e. the Pythagoreans] were: [. . .] at Metapontum, [. . .] Eurytus.

P3 (< 14.10, 44 A4) Diog. Laert. 8.46

[. . . **PYTH. b T29**] ἦσαν δὲ ἀκροαταὶ Φιλολάου καὶ
Εὐρύτου τῶν Ταραντίνων.

. . . *or from Croton (P4)*

P4 (< 45.1) Iambl. VP 148

[. . .] Εὐρυτος μὲν ὁ Κροτωνιάτης [. . . = **P8**].

Chronology (P5)

P5 (≠ DK) Iambl. VP 104

[. . .] οἱ ἐκ τοῦ διδασκαλείου τούτου, μάλιστα δὲ οἱ
παλαιότατοι καὶ αὐτῷ συγχρονίσαντες καὶ μαθητεύ-
σαντες τῷ Πυθαγόρᾳ πρεσβύτεροι, Φιλόλαός τε καὶ
Εὐρυτος [. . .].

His Teacher (P6)

P6 (< 45.1) Iambl. VP 148

[. . .] Εὐρυτος [. . .] Φιλολάου ἀκουστής [. . . = **P8**].

EURYTUS

P3 (< 14.10, 44 A4) Diogenes Laertius

[. . .] they [i.e. the last Pythagoreans] had been the pupils of Philolaus and Eurytus, both of Tarentum.

. . . or from Croton (P4)

P4 (< 45.1) Iamblichus, *Life of Pythagoras*

[. . .] Eurytus of Croton [. . .].

Chronology (P5)

P5 (\neq DK) Iamblichus, *Life of Pythagoras*

[. . .] those who came from this school, and especially the most ancient ones, who lived at the same time as he [i.e. Pythagoras] did and who studied with Pythagoras when he was already old while they were young, Philolaus and Eurytus [. . .].

His Teacher (P6)

P6 (< 45.1) Iamblichus, *Life of Pythagoras*

[. . .] Eurytus [. . .] a pupil of Philolaus [. . .].

EARLY GREEK PHILOSOPHY IV

Plato and Eurytus (P7)

P7

a (< 44 A5, cf. 45.1) Diog. Laert. 3.6

[. . .] κακέϊθεν εἰς Ἰταλίαν πρὸς τοὺς Πυθαγορικοὺς
Φιλόλαον καὶ Εὐρυτον.

b (cf. 45.1) Apul. *Plat.* 3

et ad Italiam iterum venit et Pythagoreos Eurytum Tarentinum et seniore Archytam sectatus.

An Anecdote (P8)

P8 (45.1) Iambl. *VP* 148

[. . .] Εὐρυτος μὲν ὁ Κροτωνιάτης, Φιλολάου ἀκουστής, ποιμένος τινὸς ἀπαγγείλαντος αὐτῷ ὅτι μεσημβρίας ἀκούσειε Φιλολάου φωνῆς ἐκ τοῦ τάφου καὶ ταῦτα πρὸ πολλῶν ἐτῶν τεθνηκότος ὥσανεὶ ᾄδοντας, “καὶ τίνα πρὸς θεῶν” εἶπεν “ἁρμονίαν;”

EURYTUS

Plato and Eurytus (P7)

P7

a (< 44 A5, cf. 45.1) Diogenes Laertius

[. . .] and from there [scil. the home of Theodorus the mathematician, at Cyrene, Plato left] for Italy to meet Philolaus and Eurytus.

b (cf. 45.1) Apuleius, *Plato*

He [i.e. Plato] traveled to Italy again and sought out the Pythagoreans Eurytus of Tarentum and the aged Archytas.

An Anecdote (P8)

P8 (45.1) Iamblichus, *Life of Pythagoras*

[. . .] A shepherd announced to Eurytus of Croton, a pupil of Philolaus, that at noon he had heard Philolaus' voice rising up from his tomb—and this despite the fact that he had been dead for many years—as though he were singing; and he asked, “And in which harmony, by the gods?”

EURYTUS [45 DK]

D

Eurytus' Procedure (D1–D2)

D1 (< 45.3) Arist. *Metaph.* N5 1092b8–13

[. . .] ὡς Εὐρυτος ἔταττε τίς ἀριθμὸς τίνος, οἶον ὁδὶ μὲν ἀνθρώπου ὁδὶ δὲ ἵππου, ὥσπερ οἱ τοὺς ἀριθμοὺς ἄγοντες εἰς τὰ σχήματα τρίγωνον καὶ τετράγωνον, οὕτως ἀφομοιῶν ταῖς ψήφοις τὰς μορφὰς τῶν φυτῶν¹ [. . .].

¹ τῶν φυτῶν mss.: τούτων Zeller: <τῶν ζώων καὶ> φυτῶν Christ

D2 (< 45.2) Theophr. *Metaph.* 6a15–22

ἀπὸ δ' οὖν ταύτης ἢ τούτων τῶν ἀρχῶν ἀξιώσειεν ἄν τις [. . .] τὰ ἐφεξῆς εὐθὺς ἀποδιδόναι καὶ μὴ μέχρι του προελθόντα παύεσθαι· τοῦτο γὰρ τελέον καὶ φρονούντος, ὅπερ Ἀρχύτας ποτ' ἔφη ποιεῖν Εὐρυτον διατιθέμενα τινὰς ψήφους· λέγειν γὰρ ὡς ὅδε μὲν ἀνθρώπου ὁ ἀριθμός, ὅδε δὲ ἵππου, ὅδε δ' ἄλλου τινὸς τυγχάνει.

EURYTUS

D

Eurytus' Procedure (D1–D2)

D1 (< 45.3) Aristotle, *Metaphysics*

[. . .] the way in which Eurytus assigned what is the number of what, for example this one of man, and this one of horse, reproducing with pebbles the shapes of natural creatures (*phuta*),¹ like those people who put numbers into the figures, the triangle and square [. . .].²

¹ This term usually designates plants in particular. ² The commentary by Michael of Ephesus (p. 827.9–26 Hayduck) explains the procedure in terms of a sort of mosaic, but it is unlikely that this comparison goes back to Eurytus.

D2 (< 45.2) Theophrastus, *Metaphysics*

On the basis of this or of these principles [. . .], it could be considered right that one give an account directly of those [scil. things] that come next and not stop once one has arrived at a certain point. For it belongs to an adult and intelligent man to proceed in this way, as Archytas once said that Eurytus did when he arranged certain pebbles. For he [i.e. Eurytus, according to Archytas] said that this is the number of man, and this of horse, and this of something else.

14. ARCHYTAS [ARCHY.]

Archytas of Tarentum was born ca. 435 BC and was still alive in 360, according to the testimony of the *Seventh Letter* attributed to Plato, of whom he was a friend. If he belongs therefore to the post-Socratic period in chronological terms, there is nonetheless good reason to connect him, as scholars have traditionally done, to the earlier Pythagorean tradition, of which his engagement in mathematical research, compounded with a sophisticated epistemological reflection, certainly makes him a representative of one of the principal orientations. Consideration of his scientific fragments makes it easy to understand the influence he was able to exert upon Plato's thought, visible in the classification of the sciences in Book 7 of his *Republic*. We have much more information about the personality of Archytas than about that of his predecessors. In particular, he was elected general seven times (between 367 and 361), and thus was involved in politics; this too belongs to the image of primitive Pythagoreanism, though in a rather different way. Even more than to Philolaus, very many pseudepigraphic writings are attributed to him. In most cases, the evidently Platonic and Aristotelian inspiration of these treatises makes it quite easy to recognize them as inauthentic (see **PYTHS. R52–R53**); but one treatise of a moral and political character entitled

ARCHYTAS

On Law and Justice has been defended as authentic by a number of scholars, and we provide some extracts from it in an appendix (D25).

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See also the titles listed in the General Introduction to Chapters 10–18.

EARLY GREEK PHILOSOPHY IV

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- Chronology (P3)*
- The General (P4–P5)*
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- Archytas as a Student of Philolaus (P8)*
- Archytas and Plato (P9–P12)*
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D

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Music (D14–D19)

The Production of Sounds (D14–D15)

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Appendix: Some Fragments from a (Pseudepigraphic?)

Treatise on Political Theory (D25)

ARCHYTAS [47 DK]

P

Origin and Family (P1–P2)

P1 (< A1) Diog. Laert. 8.79

Ἀρχύτας Μνησαγόρου Ταραντῖνος, ὥς δὲ Ἀριστόξε-
νος [Frag. 47 Wehrli], Ἑστιαίου, Πυθαγορικὸς καὶ αὐ-
τός.

P2 Iambl. VP 267

a (< A6b Huffman)

ζηλωτὰς δὲ γράφειν γενέσθαι τῶν ἀνδρῶν [. . .] ἐν
Τάραντι δὲ Ἀρχύταν.

b (< 58A.)

[5] Ταραντῖνοι Φιλόλαος, Εὐρυτος, Ἀρχύτας [. . .].

ARCHYTAS

P

Origin and Family (P1–P2)

P1 (< A1) Diogenes Laertius

Archytas of Tarentum, son of Mnesagoras (or, according to Aristoxenus, of Hestiaeus), he too a Pythagorean.

P2 Iamblichus, *Life of Pythagoras*

a (≠ DK)

He [scil. Diodorus of Aspendus] writes that disciples of these men [i.e. the Pythagoreans] were: [. . .] at Tarentum, Archytas.

b (< 58A.)

[5] From Tarentum: Philolaus, Eurytus, Archytas, [. . .].

EARLY GREEK PHILOSOPHY IV

Chronology (P3)

P3 (< A6b Huffman) Iambl. VP

a 104

[. . .] οἱ ἐκ τοῦ διδασκαλείου τούτου, μάλιστα δὲ οἱ παλαιότατοι καὶ αὐτῷ συγχρονίσαντες καὶ μαθητεύσαντες τῷ Πυθαγόρᾳ πρεσβύτη νέοι, Φιλόλαός τε καὶ Εὐρυτος [. . .] Ἀρχύτας τε ὁ πρεσβύτερος [. . .].

b 250

οἱ δὲ λοιποὶ τῶν Πυθαγορείων ἀπέστησαν τῆς Ἰταλίας πλὴν Ἀρχύτου τοῦ Ταραντίνου.

The General (P4–P5)

P4 (< A1) Diog. Laert. 8.79, 82

[79] ἐθανμάζετο δὲ καὶ παρὰ τοῖς πολλοῖς ἐπὶ πάσῃ ἀρετῇ· καὶ δὴ ἐπτάκις τῶν πολιτῶν ἐστρατήγησε, τῶν ἄλλων μὴ πλεόν ἐνιαυτοῦ στρατηγούντων διὰ τὸ κωλύειν τὸν νόμον. [. . .] [82] τὸν δὲ Πυθαγορικὸν Ἀριστόξενός φησι μηδέποτε στρατηγούντα ἡττηθῆναι φθονούμενον δ' ἅπαξ ἐκχωρῆσαι τῆς στρατηγίας καὶ τοὺς αὐτίκα ληφθῆναι.

P5 (Ald Huffman) Ael. Var. hist. 7.14

τί δέ; οὐκ ᾔσαν καὶ οἱ φιλόσοφοι τὰ πολέμια ἀγαθοί;

ARCHYTAS

Chronology (P3)

P3 (\neq DK) Iamblichus, *Life of Pythagoras*

a

[. . .] those who came from this school, and especially the most ancient ones, who lived at the same time as he [i.e. Pythagoras] did and who studied with Pythagoras when he was already old while they were young, Philolaus and Eurytus [. . .] and the older Archytas [. . .].

b

The other Pythagoreans left Italy, except for Archytas of Tarentum [scil. after the anti-Pythagorean revolts, cf. **PYTH. b T25–T27**].

The General (P4–P5)

P4 ($<$ A1) Diogenes Laertius

[79] He was admired by the people for every kind of excellence; indeed, he was made general of his fellow citizens seven times, while the others were not generals for more than one year because the law prohibited this. [. . .] [82] Aristoxenus says that this Pythagorean was never defeated while he was a general, but that one day he resigned the generalship because he was the object of ill will, and they [i.e. his soldiers] were immediately made prisoners.

P5 (\neq DK) Aelian, *Historical Miscellany*

What? Were philosophers not good at military matters

EARLY GREEK PHILOSOPHY IV

ἐμοὶ μὲν δοκοῦσιν· εἴ γε Ἀρχύταν μὲν εἶλοντο ἐξάκις
στρατηγὸν Ταραντῖνοι [. . .].

The Statesman (P6–P7)

P6 (< A4) Strab. 6.3.4

ἀπεδέξαντο δὲ καὶ τὴν Πυθαγόρειον φιλοσοφίαν, δι-
αφερόντως δ' Ἀρχύτας ὃς καὶ προέστη τῆς πόλεως
πολὺν χρόνον.

P7 (A5c4 Huffman) Plut. *Lib. ed.* 8B

πειρατέον οὖν εἰς δύναμιν καὶ τὰ κοινὰ πράττειν καὶ
τῆς φιλοσοφίας ἀντιλαμβάνεσθαι κατὰ τὸ παρὲν
τῶν καιρῶν. οὕτως ἐπολιτεύσατο Περικλῆς, οὕτως
Ἀρχύτας ὁ Ταραντῖνος [. . .].

Archytas as a Student of Philolaus (P8)

P8 (> 44 A3) Cic. *De orat.* 3.34.139

aliisne igitur artibus [. . .] instituit [. . .] Philolaus Archytam
Tarentinum?

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too? It seems to me that they were, if the Tarentines chose Archytas as a general six times [. . .].

The Statesman (P6–P7)

P6 (< A4) Strabo, *Geography*

They [i.e. the Tarentines] also welcomed the Pythagorean philosophy, and this was especially the case with Archytas, who also governed the city for a long time.

P7 (≠ DK) Plutarch, *On the Education of Children*

Hence one must strive as far as lies within one's power both to participate in public life and to practice philosophy as far as circumstances permit. This is how Pericles engaged in politics, just like Archytas of Tarentum [. . .].

Archytas as a Student of Philolaus (P8)

P8 (> 44 A3) Cicero, *On the Orator*

Did Philolaus then teach Archytas of Tarentum other arts [scil. than philosophy]?

EARLY GREEK PHILOSOPHY IV

Archytas and Plato (P9–P12)

Plato as a Student of Archytas (P9)

P9

a (< A5b9 Huffman) Olymp. *In Alc.* 2.86–93

μετὰ δὲ τὴν τελευτὴν Σωκράτους διδασκάλῳ πάλιν
ἐχρήσατο Κρατύλῳ τῷ Ἡρακλειτεῖ [. . .]. μετὰ τοῦτον
δὲ πάλιν στέλλεται εἰς Ἰταλίαν καὶ διδασκαλεῖον
εὐρὼν ἐκεῖ τῶν Πυθαγορείων συνιστάμενον Ἀρχύταν
πάλιν ἔσχε διδάσκαλον τὸν Πυθαγόρειον.

b (A5b10 Huffman) Phot. *Bibl.* 2.49, p. 438b16–19
Bekker

ἀνεγνώσθη Πυθαγόρου βίος.

ὅτι ἕνατος ἀπὸ Πυθαγόρου διάδοχος γέγονε, φησί,
Πλάτων, Ἀρχύτου τοῦ πρεσβυτέρου μαθητῆς γενόμε-
νος [. . .].

Archytas as a Student of Plato (P10)

P10 (A5c3 Huffman) Philod. *Acad. Ind.* in P. Herc. 1021,
V.32–VI.12 (pp. 134–35 Dorandi)

Πλάτωνος μ[αθητα]ὶ ἦσ[α]ν . . . Ἀρχύτας Ταραν[τῆ]
νος . . .

ARCHYTAS

Archytas and Plato (P9–P12) *Plato as a Student of Archytas (P9)*

P9

a (\neq DK) Olympiodorus, *Commentary on Plato's First Alcibiades*

After the death of Socrates, he [scil. Plato] in turn had Cratylus the Heraclitean as his teacher [. . .]. After him he traveled once again to Italy, and having found a school of Pythagoreans established there, in turn he had Archytas the Pythagorean as teacher.

b (\neq DK) Photius, *Library*

I have read a life of Pythagoras.

It says that the ninth successor of Pythagoras was Plato, who had been the disciple of the older Archytas [. . .].

Archytas as a Student of Plato (P10)

P10 (\neq DK) Philodemus, *History of Philosophy: Index of the Members of the Academy*

Plato's students were . . . Archytas of Tarentum . . .

*The Sicilian Affair (P11–P12)***P11** (< A5) (Ps.-?) Plat. *Epist.* 7**a** 338c

ἔοικεν δὴ τὸ μετὰ τοῦτο Ἀρχύτης τε παρὰ Διονύσιον¹
ἀφικέσθαι—ἐγὼ γὰρ πρὶν ἀπιέναι ξενίαν καὶ φιλίαν
Ἀρχύτῃ καὶ τοῖς ἐν Τάραντι καὶ Διονυσίῳ ποιήσας
ἀπέπλεον [. . .].

¹ post Διονύσιον hab. ΑΟ πρὶν, in marg. Ο τὸ πρὶν ἀλλαχοῦ
ὠβέλισται

b 339d

ἐπιστολαὶ δὲ ἄλλαι ἐφοίτων παρά τε Ἀρχύτου καὶ
τῶν ἐν Τάραντι, τὴν τε φιλοσοφίαν ἐγκωμιάζουσαι
τὴν Διονυσίου, καὶ ὅτι, ἂν μὴ ἀφίκωμαι νῦν, τὴν πρὸς
Διονύσιον αὐτοῖς γενομένην φιλίαν δι' ἐμοῦ, οὐ σμι-
κρὰν οὔσαν πρὸς τὰ πολιτικά, παντάπασιν διαβα-
λοίην.

c 350a

ῥκουν δὴ τὸ μετὰ τοῦτο ἔξω τῆς ἀκροπόλεως ἐν τοῖς
μισθοφόροις· προσιόντες δέ μοι ἄλλοι τε καὶ οἱ τῶν
ὑπηρεσιῶν ὄντες Ἀθήνηθεν, ἐμοὶ πολῖται, ἀπήγγελ-
λον ὅτι διαβεβλημένος εἶην ἐν τοῖς πελτασταῖς καὶ
μοί τινες ἀπειλοῖεν, εἴ που λήψονταί με, διαφθερεῖν.
μηχανῶμαι δὴ τινα τοιάνδε σωτηρίαν. πέμπω παρ'

ARCHYTAS

The Sicilian Affair (P11–P12)

P11 (< A5) (Ps.-?) Plato, *Letter 7*

a

After this Archytas seems to have gone to find Dionysius—for when I sailed away, before I left I had established bonds of hospitality and friendship between Archytas and the Tarentines on the one hand and Dionysius on the other [. . .].

b

Other letters reached me regularly from Archytas and from the men in Tarentum, who praised Dionysius' philosophical attitude and said that if I did not come immediately I would completely discredit the friendship between them and Dionysius that had been established thanks to me and that was no small matter from a political standpoint.

c

After this, I lived outside the acropolis among the mercenaries. Among other people, some attendants from Athens, fellow citizens of mine, arrived and announced to me that I had been slandered among the soldiers and that some were threatening that if they caught me they would kill me. This is the plan I devised to save myself: I sent

Ἀρχύτην καὶ τοὺς ἄλλους φίλους εἰς Τάραντα, φράζων ἐν οἷς ὧν τυγχάνω· οἱ δὲ πρόφασιν τινα πρεσβείας πορισάμενοι παρὰ τῆς πόλεως πέμπουσιν τριακόντορόν τε καὶ Λαμίσκον αὐτῶν ἕνα, ὃς ἐλθὼν ἔδειτο Διονυσίου περὶ ἐμοῦ, λέγων ὅτι βουλοίμην ἀπιέναι, καὶ μηδαμῶς ἄλλως ποιεῖν. ὁ δὲ συνωμολόγησεν καὶ ἀπέπεμψεν ἐφόδια δούς [. . .].

P12 (< A1) Diog. Laert. 8.79

οὗτός ἐστιν ὁ Πλάτωνα ῥυσάμενος δι' ἐπιστολῆς παρὰ Διονυσίου μέλλοντα ἀναιρεῖσθαι. [. . .] πρὸς τοῦτον καὶ Πλάτων γέγραφεν ἐπιστολὰς δύο, ἐπειδὴ περ αὐτῷ πρότερος γεγράφει τοῦτον τὸν τρόπον [. . .].

Eudoxus as a Student of Archytas (P13)

P13 (A6c Huffman) Diog. Laert. 8.86

οὗτος [sc. Εὐδόξος] τὰ μὲν γεωμετρικὰ Ἀρχύτα διήκουσε [. . .].

Practice and Theory of the Aulos (P14)

P14 (> 44 A7) Athen. *Deipn.* 4 184d–e

καὶ τῶν Πυθαγορικῶν δὲ πολλοὶ τὴν αὐλητικὴν ἥσκησαν, ὡς Εὐφράνωρ τε καὶ Ἀρχύτας Φιλόλαός τε ἄλλοι τε οὐκ ὀλίγοι. ὁ δ' Εὐφράνωρ καὶ σύγγραμμα περὶ αὐλῶν κατέλιπεν ὁμοίως δὲ καὶ ὁ Ἀρχύτας.

ARCHYTAS

emissaries to Tarentum, to Archytas and my other friends, explaining the situation in which I found myself. And they, providing as pretext some embassy from the city, sent a thirty-oared ship with Lamiscus, one of them. When he arrived he interceded with Dionysius on my behalf, saying that I wanted to leave, and asking him not to do anything at all to oppose this. He agreed and let me go after giving me provisions for my travel [. . .].

P12 (< A1) Diogenes Laertius

He is the one who saved Plato by means of a letter when he was going to be killed by Dionysius. [. . .] Plato also wrote two letters to him, since he had written first to him as follows: [. . .].¹

¹ There follow two (apocryphal) letters from Archytas to Plato (Thesleff, p. 46.1–7) and from Plato to Archytas (Letter 12).

Eudoxus as a Student of Archytas (P13)

P13 (≠ DK) Diogenes Laertius

He [scil. Eudoxus] studied geometry with Archytas [. . .].

Practice and Theory of the Aulos (P14)

P14 (> 44 A7) Athenaeus, *Deipnosophists*

Many of the Pythagoreans practiced the art of the *aulos*, like Euphranor, Archytas, Philolaus, and many others. Euphranor also left behind a treatise on *auloi*, and so too Archytas.

Dialect (P15)

P15 (< A6g Huffman) Greg. Cor. *Dial. Praef.*, pp. 5–6

αὐτοὶ τοῖνυν [. . .] προθέμενοι [. . .] Δωρίδος δὲ τὸν
Ταραντῖνον Ἀρχύταν καὶ Θεόκριτον [. . .], ἴσως ἂν
περὶ τῶν διαλέκτων ἱκανῶς διαλάβοιμεν.

Character and Apothegms (P16–P20)

P16 (A7) Aristox. in Iambl. VP 197

Σπίνθαρος γοῦν διηγείτο πολλάκις περὶ Ἀρχύτου
<τοῦ>¹ Ταραντίνου, ὅτι διὰ χρόνου τινὸς εἰς ἀγρὸν
ἀφικόμενος, ἐκ² στρατιᾶς³ νεωστὶ παραγεγονώς, ἦν
ἐστρατεύσατο ἢ πόλις εἰς Μεσσαπίους,⁴ ὡς εἶδε τὸν
τε ἐπίτροπον καὶ τοὺς ἄλλους οἰκέτας οὐκ εὖ τῶν περὶ
τὴν γεωργίαν ἐπιμελείας⁵ πεποιημένους, ἀλλὰ μεγάλη
τινὶ κεχρημένους ὀλιγωρίας ὑπερβολῇ, ὀργισθεῖς τε
καὶ ἀγανακτήσας οὕτως, ὡς ἂν ἐκεῖνος, εἶπεν, ὡς
ἔοικε, πρὸς τοὺς οἰκέτας ὅτι εὐτυχοῦσιν ὅτι αὐτοῖς
ᾠργισται· εἰ γὰρ μὴ τοῦτο συμβεβηκὸς ἦν, οὐκ ἂν
ποτε αὐτοὺς ἀθῶους γενέσθαι τηλικαῦτα ἡμαρτη-
κότας.

¹ <τοῦ> Cobet
τείας Mahne
σηγίους Arcerius

² ἐκ Scaliger: καὶ ms.

³ στρα-
⁴ Μεσσαπίους Cobet: μεσανίους ms.: Μεσ-

⁵ ἐπιμέλειαν Wakefield

ARCHYTAS

Dialect (P15)

P15 (≠ DK) Gregory of Corinth, *On Dialects*

If we establish as a canon [. . .] of the Doric dialect Archytas of Tarentum and Theocritus [. . .], then surely we shall have distinguished the dialects sufficiently.

Character and Apothegms (P16–P20)

P16 (A7) Aristoxenus in Iamblichus, *Life of Pythagoras*

Spintharus often told the story about Archytas of Tarentum, that when he arrived at his estate after some time, having just returned from the military campaign his city had waged against the Messapians, he saw that the administrator and the other slaves had not taken proper care of the farming, but had shown excessive neglect; becoming angry and annoyed, as he could be, he said, as it seems, to the slaves that they were lucky that he was angry; for if this had not been the case, they would not have gotten away without being punished for having made such terrible mistakes.

P17 (A7a Huffman) Cic. *Lael.* 88

verum ergo illud est, quod a Tarentino Archyta, ut opinor, dici solitum nostros senes commemorare audiui ab aliis senibus auditum: “si quis in caelum ascendisset naturamque mundi et pulchritudinem siderum perspexisset, in-suavem illam admirationem ei fore; quae iucundissima fuisset, si aliquem,¹ cui narraret, habuisset.”

¹ si aliquem] nisi aliquem *M*: nisi aliqui *B*

P18**a** (A8) Athen. *Deipn.* 12 519b

καὶ Ἀθηνόδωρος δὲ ἐν τῷ Περὶ σπονδῆς καὶ παιδιᾶς¹ Ἀρχύταν φησὶ τὸν Ταραντῖνον πολιτικὸν ἅμα καὶ φιλόσοφον γενόμενον πλείστους οἰκέτας ἔχοντα αἰεὶ τούτων τοῖς παιδίοις² παρὰ τὴν δίαιταν ἀφιεμένοις εἰς τὸ συμπόσιον ἥδεσθαι.

¹ παιδείας *A*, corr. Musurus

² αἰεὶ τούτοις *ms.*, corr. Casaubon ex *Ael. Var. hist.* 12.15

b (A10) Arist. *Pol.* 8.6 1340b25–28

ἅμα δὲ καὶ δεῖ τοὺς παῖδας ἔχειν τινὰ διατριβήν, καὶ τὴν Ἀρχύτου πλαταγὴν οἶεσθαι γενέσθαι καλῶς, ἣν διδόασιν τοῖς παιδίοις ὅπως χρώμενοι ταύτῃ μηδὲν καταγνύωσι τῶν κατὰ τὴν οἰκίαν.

ARCHYTAS

P17 (≠ DK) Cicero, *On Friendship*

What Archytas of Tarentum used to say, I believe, as our elders say they heard it from their own elders, is true: "If someone ascended into the heavens and saw the nature of the world and the beauty of the stars, his admiration would be without pleasure; but it would be extremely delightful, if he had someone to whom he could tell it."

P18 (A8)

a Athenaeus, *Deipnosophists*

Athenodorus says in his *On Seriousness and Play* that Archytas of Tarentum, who was both a statesman and a philosopher and had very many slaves, always took pleasure in their <little children> when, by his custom, they were admitted into his drinking party.

b Aristotle, *Politics*

At the same time it is also necessary that children have something to busy themselves with, and Archytas' rattle must be supposed to be a fine invention; they give it to children so that they play with this and so do not break anything in the house.

P19 (A11) Ael. *Var. hist.* 14.19

Ἀρχύτας τά τε ἄλλα ἦν σώφρων καὶ οὖν καὶ τὰ ἄκο-
σμα ἐφυλάττετο τῶν ὀνομάτων. ἐπεὶ δέ ποτε ἐβιάζετο
τι εἰπεῖν τῶν ἀπρεπῶν, οὐκ ἐξενικήθη, ἀλλ' ἐσιώπησε
μὲν αὐτό, ἐπέγραψε δὲ κατὰ τοῦ τοίχου, δείξας μὲν ὃ
εἰπεῖν ἐβιάζετο, οὐ μὲν βιασθεὶς εἰπεῖν.

P20 (A11a Huffman) Ael. *Var. hist.* 10.12

Ἀρχύτας ἔλεγεν “ὥσπερ ἔργον ἐστὶν ἰχθὺν εὐρεῖν
ἄκανθαν μὴ ἔχοντα, οὕτω καὶ ἄνθρωπον μὴ κεκτημέ-
νον τι δολερὸν καὶ ἀκανθῶδες.”

A Caricature (P21)

P21 (≠ DK) Bion Borysth. in Diog. Laert. 4.52 (= Frag.
227 SH)

ὦ πέπον Ἀρχύτα, ψαλληγενές, ὀλβιότυφε,
τῆς ὑπάτης ἔριδος πάντων ἐμπειρότατ' ἀνδρῶν.

A Meditation on His Death (P22)

P22 (< A3) Hor. *Carm.* 1.28.1–6

te maris et terrae numeroque carentis harenae
mensorem cohibent, Archyta,

ARCHYTAS

P19 (A11) Aelian, *Historical Miscellany*

Archytas was moderate in general and so he also avoided indecency in his speech. And one time when he was obliged to say something unseemly, he did not yield, but passed it over in silence and wrote it down on a wall, indicating what he was obliged to say but without being obliged to say it.

P20 (≠ DK) Aelian, *Historical Miscellany*

Archytas used to say, "It is just as difficult to find a fish that does not have bones (*akantha*), as a man who does not have something deceitful and prickly (*akanthôdes*) about him."

A Caricature (P21)

P21 (≠ DK) Bion of Borysthenes in Diogenes Laertius

Oh gentle Archytas, harp-born, happy in your own
conceit,
Most expert of men in the bass tone of strife!

A Meditation on His Death (P22)

P22 (< A3) Horace, *Odes*

You who measured the sea and the earth and the
numberless sands,
Archytas, the paltry funeral rites

EARLY GREEK PHILOSOPHY IV

pulveris exigui prope litus¹ parva Matinum
munera, nec quidquam tibi prodest
aerias² temptasse domos animoque rotundum
percurrisse polum morituro.

[. . .]

¹ litus Ψλ: latus *E*: latum *ABR*

² aetherias *Meineke*

ARCHYTAS

Of a little heap of dust confine you near the Matine
shore,

Nor does it do you any good

That you made an attempt on the heavenly palaces
and traversed

The round sky with the aid of a mind that had to
die.

[. . .]

ARCHYTAS [47 DK]

D

Epistemological Considerations (D1–D2)

Definition (D1)

D1 (< A22) Arist. *Metaph.* H2 1043a21–24

ὁμοίως δὲ καὶ οἷους Ἀρχύτας ἀπεδέχετο ὄρους· τοῦ
συνάμφω γάρ εἰσιν. οἷον τί ἐστὶν νηνεμία; ἡρεμία ἐν
πλήθει ἀέρος· [. . .] τί ἐστὶ γαλήνη; ὁμαλότης θαλάτ-
της.

Resemblances (D2)

D2 (> A12) Arist. *Rhet.* 3.11 1412a9–14

[. . .] καὶ ἐν φιλοσοφίᾳ <τὸ>¹ τὸ ὅμοιον καὶ ἐν πολὺν
διέχουσι θεωρεῖν εὐστόχου, ὥσπερ Ἀρχύτας ἔφη ταῦ-
τόν εἶναι διαιτητὴν καὶ βωμόν· ἐπ' ἅμφω γὰρ τὸ ἀδι-
κούμενον καταφεύγει.

¹ <τὸ> Vahlen

ARCHYTAS

D

Epistemological Considerations (D1–D2)

Definition (D1)

D1 (< A22) Aristotle, *Metaphysics*

It is the same with the kinds of definitions that Archytas accepted: for they belong to both [scil. the matter and the form] at once. For example, what is windlessness? A stillness in a quantity of air [. . .]. What is an ocean calm? An evenness of the sea.

Resemblances (D2)

D2 (> A12) Aristotle, *Rhetoric*

[. . .] in philosophy too [scil. as in rhetoric], envisioning what is similar even in things that are very remote from one another is the mark of a shrewd person, as Archytas said that an arbitrator and an altar are the same thing: for the man who is suffering injustice seeks refuge at both of them.

*Archytas as a Mathematician (D3)***D3** (< A1) Diog. Laert. 8.83

οὗτος πρῶτος τὰ μηχανικὰ ταῖς μαθηματικαῖς¹ προσ-
 χρησάμενος ἀρχαῖς μεθώδευσε καὶ πρῶτος κίνησιν
 ὀργανικὴν διαγράμματι γεωμετρικῷ προσήγαγε, διὰ
 τῆς τομῆς τοῦ ἡμικυλίνδρου δύο μέσας ἀνὰ λόγον
 λαβεῖν ζητῶν εἰς τὸν τοῦ κύβου διπλασιασμόν. κὰν²
 γεωμετρία πρῶτος κύβον³ εὗρεν, ὥς φησι Πλάτων ἐν
 Πολιτείᾳ.

¹ μηχανικαῖς mss., corr. Kühn² κὰν Roeper: καὶ mss.³ <τὴν τῶν> κύβων <αὔξην> Huffman*Calculation, Number, Arithmetic (D4–D8)**Praise of Calculation (D4–D5)*

D4 (B3) Stob. 4.1.139 (δεῖ γὰρ . . . ἀδύνατον: cf. Iambl.
Comm., p. 44.10–17)

ἐκ τοῦ Ἀρχύτου Περὶ μαθημάτων

δεῖ γὰρ ἢ μαθόντα παρ' ἄλλω ἢ αὐτὸν ἐξευ-
 ρόντα, ὧν ἀνεπιστάμων¹ ᾗσθα, ἐπιστάμονα
 γενέσθαι. τὸ μὲν ὧν μαθὲν παρ' ἄλλω καὶ ἀλ-
 λότριον, τὸ δ' ἐξευρὲν αὐτὸν δι' αὐτοῦ καὶ
 ἴδιον. ἐξευρὲν δὲ μὴ² ζατοῦντα ἄπορον καὶ
 σπάνιον, ζατοῦντα δὲ³ εὐπορον καὶ ῥάδιον· μὴ

Archytas as a Mathematician (D3)

D3 (< A1) Diogenes Laertius

He was the first to systematize mechanics by making use of mathematical principles, and the first to apply the movement of an instrument to a geometrical proof, when he tried to find two mean proportionals by sectioning a half-cylinder in order to duplicate the cube. And in geometry he was the first to discover [scil. the dimensions of] the cube, as Plato says in his *Republic* [cf. *Rep.* 7 528b].

Calculation, Number, Arithmetic (D4–D8)

Praise of Calculation (D4–D5)

D4 (B3) Stobaeus, *Anthology*

From Archytas, *On the Sciences*:

For it is necessary to arrive at knowing what you did not know either by learning it from someone else or by discovering it yourself. Now what one learns from someone else also belongs to another, while what one discovers oneself belongs to oneself as one's own. But to discover without seeking is difficult and rare,

¹ ἀνεπιστάμων Blass: ἐπιστάμων Stob.: ἀν αὐτῶν ἐπιστάμων Iambl. ² μὴ Iambl.: μὴν Stob. ³ ἄπορον . . . δὲ om. Stob., hab. Iambl.

ἐπιστάμενον δὲ ζητεῖν⁴ ἀδύνατον. στάσιν μὲν ἔπαυσεν, ὁμόνοϊαν δὲ αὐξήσεν λογισμὸς εὐρεθείς· πλεονεξία τε γὰρ οὐκ ἔστι τούτου γενομένου καὶ ἰσότης ἔστιν· τούτῳ γὰρ περὶ τῶν συναλλαγμάτων διαλλασσόμεθα. διὰ τοῦτον οὖν οἱ πένητες λαμβάνοντι παρὰ τῶν δυναμένων, οἳ τε πλούσιοι διδόντι⁵ τοῖς δεομένοις, πιστεύοντες ἀμφοτέρω διὰ τούτων⁶ τὸ ἴσον ἔχειν. κανὼν δὲ καὶ κωλυτὴρ τῶν ἀδικούντων <ἐὼν>⁷ τοὺς μὲν ἐπισταμένους λογίζεσθαι⁸ πρὶν ἀδικεῖν ἔπαυσε,⁹ πείσας ὅτι οὐ δυνασοῦνται λαθεῖν, ὅταν ἐπ' αὐτὸν ἔλθωντι, τοὺς δὲ μὴ ἐπισταμένους, ἐν αὐτῷ δηλώσας ἀδικοῦντας, ἐκώλυσεν ἀδικῆσαι.

⁴ <λογίζεσθαι> ζητεῖν Huffman ⁵ διδόντες mss., corr. Canter ⁶ τούτων mss.: τούτω Gesner ⁷ <ἐὼν> Blass ⁸ λογίζεσθαι Pflugk: ὀργίζεσθαι mss.: τῷ ὀργίζεσθαι Gesner ⁹ παύσας mss., corr. Gesner

D5 (B4) Stob. 1 prooem. 4

ἐκ τῶν Ἀρχύτου διατριβῶν

καὶ δοκεῖ ἅ λογιστικὰ ποτὶ τὰν σοφίαν¹ τῶν μὲν ἄλλων² τεχνῶν καὶ πολὺ διαφέρειν, ἀτὰρ καὶ τᾶς γεωμετρικᾶς ἐναργεστέρῳ πραγμα-

¹ τὰν ἄλλαν σοφίαν ms., corr. Diels

² ἀλλᾶν Blass

while to do so by seeking is practicable and easy; but if one does not know, then to seek is impossible.¹ The discovery of calculation (*logismos*) puts an end to civil strife and increases concord. For when this is present, there is no desire to possess more (*pleonexia*), and there is equality. For it is thanks to this that we are in accord with one another in our mutual relations. Therefore it is thanks to this that the poor receive from the powerful, and that the rich give to the needy, both parties being convinced that they will thereby have equality. And being a rule and a hindrance for unjust men, it stops those who know how to calculate before they commit injustice by persuading them that they will not be able to remain undetected whenever they have recourse to it. As for those who do not know it, having shown them that they are unjust in this area, it prevents them from committing injustice.

¹ Or, adopting Huffman's suggested supplement: "to seek without knowing <how to calculate> is impossible."

D5 (B4) Stobaeus, *Anthology*

From the *Discourses (Diatribes)* of Archytas:

And it seems that the art of calculation (*logistika*) is much superior to the other arts with regard to wisdom and that it investigates whatever it wishes more clearly than geometry

τεύεσθαι ἃ θέλει. καὶ ἃ ἐκλείπει αὖ ἃ γεωμε-
τρία, καὶ ἀποδείξιας³ ἃ λογιστικὰ ἐπιτελέει
καὶ ὁμῶς,⁴ εἰ μὲν εἰδέων τεὰ πραγματεία, καὶ
τὰ περὶ τοῖς εἵδεσιν.⁵

³ ἀπόδειξις ms., corr. Meineke ⁴ ὁμῶς ms., corr.
Meineke ⁵ τὰ περὶ τοῖς εἵδεσιν <πραγματεύεται>
Meineke: τὰ ἐπὶ τοῖς εἵδεσιν <περιλαμβάνεν> Blass

The One (D6–D7)

D6 (A20) Theon Sm. *Exp.*, p. 20.19–20

Ἀρχύτας δὲ καὶ Φιλόλαος ἀδιαφόρως τὸ ἐν καὶ μον-
νάδα καλοῦσι καὶ τὴν μονάδα ἔν.

D7 (A21) Arist. in Theon Sm. *Exp.*, p. 22.5–10

Ἀριστοτέλης δὲ ἐν τῷ Πυθαγορικῷ [Frag. 199 Rose] τὸ
ἐν φησιν ἀμφοτέρων μετέχειν τῆς φύσεως [. . . =
PYTHS. ANON. D11]: διὸ καὶ ἀρτιοπέριττον καλεῖ-
σθαι τὸ ἔν. συμφέρεται δὲ τούτοις καὶ Ἀρχύτας.

The Means (D8)

D8 (< 18.15) Iambl. *In Nic.*, pp. 100.19–101.1

[. . . = **HIPPAS. D6**] ἡ ποτὲ μὲν ὑπεναντία λεγομένη
τῇ τάξει τρίτη,¹ ὑπὸ δὲ τῶν περὶ Ἀρχύταν αὐθις καὶ
Ἰππασον ἀρμονικὴ μετακληθεῖσα [. . .].

¹ τρίτη mss., corr. Pistelli

does; and for what, inversely, geometry lacks, calculation completes the proofs, and in the same way, if there is investigation of forms, for what concerns the forms.¹

¹ The authenticity of this text is disputed.

The One (D6–D7)

D6 (A20) Theon of Smyrna, *Aspects of Mathematics Useful for Reading Plato*

Archytas and Philolaus [**PHILOL. D10**] call without distinction the one monad too and the monad one.

D7 (A21) Aristotle in Theon of Smyrna, *Aspects of Mathematics Useful for Reading Plato*

Aristotle in his book on Pythagoreans says that the one participates in the nature of both [scil. the even and the odd] [. . .]. That is why the one is called even-odd. Archytas too is in agreement with this.

The Means (D8)

D8 (< 18.15) Iamblichus, *Commentary on Nicomachus' Introduction to Arithmetic*

[. . . scil. the mean] that used to be called 'subcontrary,' the third in order, but that Archytas and Hippasus re-named 'harmonic' [. . .] [cf. **HIPPAS. D6**].

*Geometry: The Problem of Duplicating the
Cube (D9–D12)*

D9 (< A15 Huffman) Erat. in Eutoc. *In Arch.*,
p. 3.88.10–14

ἐζητείτο δὲ καὶ παρὰ τοῖς γεωμέτραις, τίνα ἄν τις
τρόπον τὸ δοθὲν στερεὸν διαμένον ἐν τῷ αὐτῷ σχή-
ματι διπλασιάσειεν. καὶ ἐκαλείτο τὸ τοιοῦτον πρό-
βλημα κύβου διπλασιασμός· [. . .] πάντων δὲ δια-
πορούντων ἐπὶ πολὺν χρόνον πρῶτος Ἴπποκράτης ὁ
Χίος ἐπενόησεν ὅτι, ἐὰν εὗρεθῇ δύο εὐθειῶν γραμμῶν,
ὧν ἡ μείζων τῆς ἐλάσσονός ἐστι διπλασία, δύο μέ-
σας ἀνάλογον λαβεῖν ἐν συνεχεῖ ἀναλογίᾳ, διπλασι-
ασθήσεται ὁ κύβος, ὥστε τὸ ἀπόρημα αὐτοῦ εἰς ἔτε-
ρον οὐκ ἔλασσον ἀπόρημα κατέστρεφεν. [. . .] τῶν δὲ
φιλοπόνως ἐπιδιδόντων ἑαυτοὺς καὶ ζητούντων δύο
τῶν δοθεισῶν δύο μέσας λαβεῖν Ἀρχύτας μὲν ὁ Τα-
ραντῖνος λέγεται διὰ τῶν ἡμικυλίνδρων εὐρηκέναι
[. . .].

*Geometry: The Problem of Duplicating the
Cube (D9–D12)*¹

¹ The texts relating to this question are numerous and the data are very controversial. The principal source for them was Eratosthenes' *Platonikos* (third century BC). The full documentation is commented in Huffman, pp. 342–401.

D9 (< A15 Huffman) Eratosthenes in Eutocius, *Commentary on Archimedes' On Spheres and Cylinders*¹

Geometers tried to find a way to double a given solid while maintaining its shape. This kind of problem was called 'duplication of the cube.' [. . .] Everyone was at a loss for a long time. Then Hippocrates of Chios was the first to realize that if one found two mean proportionals in continued proportion between two straight lines, of which the larger is twice as big as the smaller, then the cube would be doubled. As a result he transformed that problem into another problem, which was not less difficult. [. . .] After they [i.e. geometers associated with Plato to whom the Delians had appealed in order to find out how to double their altars] had devoted themselves diligently to the question and had tried to find the two means of two given lines, Archytas of Tarentum is said to have discovered them by means of semicylinders [. . .].

¹ This is a letter addressed by Eratosthenes to Ptolemy III Euergetes (third century BC). Its authenticity is not absolutely certain (cf. Huffman, p. 373), but in any case the information it provides on the history of the problem of duplicating the cube is precious.

D10 (A15a Huffman) Plut. *Quaest. conv.* 8.2 718 E–F

διὸ καὶ Πλάτων αὐτὸς ἐμέμψατο τοὺς περὶ Εὐδοξὸν καὶ Ἀρχύταν καὶ Μέναιχμον εἰς ὀργανικὰς καὶ μηχανικὰς κατασκευὰς τὸν τοῦ στερεοῦ διπλασιασμόν ἀπάγειν ἐπιχειροῦντας, ὥσπερ πειρωμένους δίχρα λόγου δύο μέσας ἀνάλογον, ἧ παρείκοι, λαβεῖν.

D11 (A14a Huffman) Procl. *In Tim.* 3 ad 32a–b (vol. 2, pp. 33.29–34.4 Diehl)

πὼς μὲν οὖν δύο δοθεισῶν εὐθειῶν δυνατόν δύο μέσας ἀνάλογον λαβεῖν, ἡμεῖς ἐπὶ τέλει τῆς πραγματείας εὐρόντες τὴν Ἀρχύτειον δείξιν ἀναγράψομεν, ταύτην ἐκλεξάμενοι μᾶλλον ἢ τὴν Μεναίχμου, διότι ταῖς κωνικαῖς ἐκεῖνος χρῆται γραμμαῖς, καὶ τὴν Ἐρατοσθέ-
νους ὡσαύτως, διότι κανόνος χρῆται παραθέσει.

D12 (A14) Eudem. in Eutoc. *In Arch.*, pp. 3.84.12–88.2

Ἀρχύτου εὕρησις, ὡς Εὐδημος ἱστορεῖ. [Frag. 141 Wehrli]

ἔστωσαν αἱ δοθεῖσαι δύο εὐθεῖαι αἱ ΑΔ, Γ. δεῖ δὴ τῶν ΑΔ, Γ δύο μέσας ἀνάλογον εὑρεῖν. γεγράφθω περὶ τὴν μείζονα τὴν ΑΔ κύκλος ὁ ΑΒΔΖ, καὶ τῇ Γ ἴση ἐνηρμόσθω ἡ ΑΒ καὶ ἐκβληθείσα συμπιπτέτω τῇ ἀπὸ τοῦ Δ ἐφαπτομένη τοῦ κύκλου κατὰ τὸ Π. παρὰ δὲ τὴν ΠΔΟ

D10 (\neq DK) Plutarch, *Table Talk*

It is for this reason [scil. that geometry frees the intellect from the sensible] that Plato himself criticized Eudoxus, Archytas, Menaechmus, and their successors for trying to divert the problem of duplicating a solid towards constructions requiring the use of an instrument and possessing a mechanical nature, as though they were trying to discover two mean proportionals (*analogon*) independently of reason (*dikha logou*) [cf. Plato, *Republic* 7 531a–b].

D11 (\neq DK) Proclus, *Commentary on Plato's Timaeus*

How then it is possible to find two mean proportionals of two given straight lines I shall transcribe at the end of my treatise, because I have found Archytas' demonstration.¹ I chose this one rather than Menaechmus' because he uses conic lines [i.e. sections], and also rather than Eratosthenes' because he has recourse to apposing a ruler.

¹ This text has not been preserved.

D12 (A14) Eudemus in Eutocius, *Commentary on Archimedes' On Spheres and Cylinders*

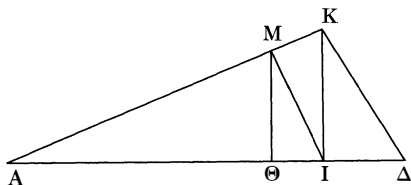
Archytas' solution, as Eudemus reports it:

Let there be two straight lines $A\Delta$ and Γ . Then one must find two mean proportionals of $A\Delta$ and Γ . Let the circle $AB\Delta Z$ be drawn around the longer line $A\Delta$, let AB equal to Γ be fitted inside [scil. the circle] and be extended it so that it meets the line, which is tangent to the circle and drawn from Δ , at Π . Let the line BEZ be drawn parallel to $\Pi\Delta O$, and

ἤχθω ἡ BEZ, καὶ νενοήσθω ἡμικυλίνδριον ὀρθὸν ἐπὶ τοῦ ABΔ ἡμικυκλίου, ἐπὶ δὲ τῆς AΔ ἡμικύκλιον ὀρθὸν ἐν τῷ τοῦ ἡμικυλινδρίου παραλληλογράμμῳ κείμενον. τοῦτο δὴ τὸ ἡμικύκλιον περιαγόμενον ὡς ἀπὸ τοῦ Δ ἐπὶ τὸ B μένοντος τοῦ A πέρατος τῆς διαμέτρου τεμεί τὴν κυλινδρικήν ἐπιφάνειαν ἐν τῇ περιαγωγῇ καὶ γράφει ἐν αὐτῇ γραμμὴν τινα. πάλιν δέ, ἐὰν τῆς AΔ μενούσης τὸ AΠΔ τρίγωνον περιενεχθῇ τὴν ἐναντίαν τῷ ἡμικυκλίῳ κίνησιν, κωνικὴν ποιήσει ἐπιφάνειαν τῇ AΠ εὐθείᾳ, ἣ δὴ περιανομένη συμβαλεῖ τῇ κυλινδρικῇ γραμμῇ κατὰ τι σημεῖον. ἄμα δὲ καὶ τὸ B περιγράψει ἡμικύκλιον ἐν τῇ τοῦ κώνου ἐπιφανείᾳ. ἐχέτω δὴ θέσιν κατὰ τὸν τόπον τῆς συμπτώσεως τῶν γραμμῶν τὸ μὲν κινούμενον ἡμικύκλιον ὡς τὴν τοῦ ΔΚΑ, τὸ δὲ ἀντιπεριαγόμενον τρίγωνον τὴν τοῦ ΔΛΑ, τὸ δὲ τῆς εἰρημένης συμπτώσεως σημεῖον ἔστω τὸ Κ. ἔστω δὲ καὶ τὸ διὰ τοῦ Β γραφόμενον ἡμικύκλιον τὸ ΒΜΖ, κοινὴ δὲ αὐτοῦ τομὴ καὶ τοῦ ΒΔΖΑ κύκλου ἔστω ἡ ΒΖ. καὶ ἀπὸ τοῦ Κ ἐπὶ τὸ τοῦ ΒΔΑ ἡμικυκλίου ἐπίπεδον κάθετος ἤχθω. πεσεῖται δὴ ἐπὶ τὴν τοῦ κύκλου περιφέρειαν διὰ τὸ ὀρθὸν ἐστάναι τὸν κύλινδρον. πιπτέτω καὶ ἔστω ἡ ΚΙ, καὶ ἡ ἀπὸ τοῦ Ι ἐπὶ τὸ Α ἐπιζευχθεῖσα συμβαλέτω τῇ ΒΖ κατὰ τὸ Θ, ἡ δὲ ΑΛ τῷ ΒΜΖ ἡμικυκλίῳ κατὰ τὸ Μ, ἐπεζεύχθωσαν δὲ καὶ αἱ ΚΔ, ΜΙ, ΜΘ.

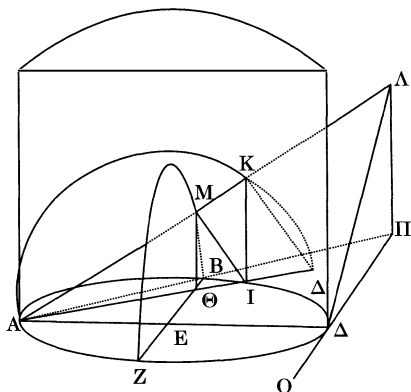
let a right semicylinder be imagined on the semicircle $AB\Delta$, and on $A\Delta$ a semicircle orthogonal lying in the parallelogram of the semicylinder. When this semicircle is rotated from Δ to B , while the extremity A of the diameter remains unmoved, it will cut the cylindrical surface during its rotation and will describe a certain line on it. And again, if, while $A\Delta$ remains unmoved, the triangle $A\Pi\Delta$ is rotated in the direction opposite to that of the semicircle, it will generate the surface of a cone with the line $A\Pi$, which, as it is rotated, will meet the line on the cylinder in a point. At the same time, the point B will also describe a semicircle on the surface of the cone. Let ΔKA be the position of the moving semicircle where the lines meet, and let $\Delta\Lambda A$ be the position of the triangle that is being rotated in the opposite direction, and let K be the point of intersection that is described above. Let BMZ be the semicircle described by B , and let BZ be the line of intersection between this and the circle $B\Delta ZA$, and let a perpendicular be drawn from K to the plane of the semicircle $B\Delta A$. It will fall on the circumference of the circle, because the cylinder is a right cylinder. Let it fall and let it be KI , and let the line that connected I to A meet the line BZ in Θ and the line $A\Lambda$ meet the semicircle BMZ in M . Let $K\Delta$, MI , and $M\Theta$ be connected.

Γ



$$A\Delta:AK :: AK:AI :: AI:AM$$

ἐπεὶ οὖν ἐκάτερον τῶν ΔΚΑ, ΒΜΖ ἡμικυκλίων ὀρθόν ἐστι πρὸς τὸ ὑποκείμενον ἐπίπεδον, καὶ ἡ κοινὴ ἄρα αὐτῶν τομὴ ἡ ΜΘ πρὸς ὀρθάς ἐστι τῷ τοῦ κύκλου ἐπιπέδῳ· ὥστε καὶ πρὸς τὴν ΒΖ ὀρθή ἐστὶν ἡ ΜΘ. τὸ ἄρα ὑπὸ τῶν ΒΘΖ, τουτέστι τὸ ὑπὸ ΑΘΙ, ἴσον ἐστὶ τῷ ἀπὸ ΜΘ· ὁμοιον ἄρα ἐστὶ τὸ ΑΜΙ τρίγωνον ἐκατέρῳ τῶν ΜΙΘ, ΜΑΘ, καὶ ὀρθὴ ἡ ὑπὸ ΙΜΑ. ἔστιν δὲ καὶ ἡ ὑπὸ ΔΚΑ ὀρθή· παράλληλοι ἄρα εἰσὶν αἱ ΚΔ, ΜΙ, καὶ ἔσται ἀνάλογον, ὥς ἡ ΔΑ πρὸς ΑΚ, τουτέστιν ἡ ΚΑ πρὸς ΑΙ, οὕτως ἡ ΙΑ πρὸς ΑΜ, διὰ τὴν ὁμοιότητα τῶν τριγώνων. τέσσαρες ἄρα αἱ ΔΑ, ΑΚ, ΑΙ, ΑΜ ἐξῆς ἀνάλογόν εἰσιν. καὶ ἐστὶν ἡ ΑΜ ἴση τῇ Γ, ἐπεὶ καὶ τῇ ΑΒ.



Since, then, each of the semicircles ΔKA and BMZ is orthogonal to the underlying plane, their line of intersection $M\Theta$ is also orthogonal to the plane of the circle, so that $M\Theta$ is also orthogonal to BZ . Therefore the rectangle contained by $B\Theta Z$, that is, the rectangle contained by $A\Theta I$, is equal to the square on $M\Theta$. The triangle AMI therefore is similar to each of the triangles $MI\Theta$ and $MA\Theta$. And the angle IMA is right. But the angle ΔKA is also right. Therefore the lines $K\Delta$ and MI are parallel and there will be a proportion: as ΔA is to AK , that is, as KA is to AI , so is IA to AM , in virtue of the similarity of the triangles. The four lines ΔA , AK , AI , AM are therefore in continued proportion. And AM is equal to Γ , since it is also equal to AB . There-

δύο ἄρα δοθεισῶν τῶν ΑΔ, Γ δύο μέσαι ἀνάλογον ἡϋρηνται αἱ ΑΚ, ΑΙ.

Mathematics Applicable to Music (D13)

D13 (< A19) Boeth. *Mus.* 3.11

demonstratio Archytae superparticularem in aequa dividi non posse [. . .].

sit, inquit, superparticularis proportio A B, sumo in eadem proportionem minimos C DE. quoniam igitur sunt minimi in eadem proportionem C DE et sunt superparticulares, DE numerus¹ C numerum parte una sua eiusque transcendit. sit haec D. dico quoniam D non erit numerus, sed unitas. si enim est numerus D et pars est eius, qui est DE, metitur D numerus DE numerum; quocirca et E numerum metietur, quo fit, ut C quoque metiatur. utrumque igitur C et DE numeros metietur D numerus, quod est impossibile. qui enim sunt minimi in eadem proportionem quibuslibet aliis numeris, hi primi ad se invicem sunt.² unitas igitur est D. igitur DE numerus C numerum unitate transcendit. quocirca nullus incidit medius numerus, qui eam propor-

¹ superparticulares. DE numerus igitur *coni.* Huffman

² *post* sunt *hab. mss.* et solam differentiam retinent unitatem: *del. Tannery*

fore for the two given lines $A\Delta$ and Γ , two mean proportionals AK and AI , have been found.¹

¹ For a diagram of this solution (on which our own diagram is based), see Huffman p. 356. The specialists disagree about whether or not it goes back to Archytas. Huffman 2005 accepts this testimonium; for the opposite view, see Brisson 2013.

Mathematics Applicable to Music (D13)

D13 (< A19) Boethius, *Fundamentals of Music*

Archytas' demonstration that a superparticular [i.e. epimoric] ratio cannot be divided into equal parts [. . .]:

Let there be, he says, an epimoric ratio $A:B$. I take $C:D+E$ as the smallest numbers that are in the same ratio. Therefore, since $C:D+E$ are the smallest numbers that are in the same ratio and since the ratio is epimoric, the number $D+E$ exceeds the number C by one of its own parts and by a part of C . Let this be D . I say that D will not be a number but a unit. For if D is a number and it is a part of $D+E$, the number D measures the number $D+E$, so that it will also measure the number E , and from this it follows that it also measures C . Therefore, the number D will measure both the numbers C and $D+E$ —which is impossible. For those numbers that are the smallest ones in the same ratio relatively to any other number at all are prime to one another. Therefore D is a unit. Therefore the number $D+E$ exceeds the number C by a unit. From this it follows that no number falls in the middle in such a way as

tionem aequaliter scindat. quo fit, ut nec inter eos, qui eandem his proportionem tenent, medius possit numerus collocari, qui eandem proportionem aequaliter scindat.

Music (D14–D19)

The Production of Sounds (D14–D15)

D14 (B1) Porph. *In Ptol.* 1.3, pp. 55.32–57.27; cf. Nicom. *Intr. arith.* 1.3.3, p. 6 (καλῶς μοι . . . ἀδελφεά)

ὅτι μὲν τοίνυν ἡ τῆς τοιαύτης αἰτίας ἀπόδοσις παλαιά τις ἦν καὶ παρὰ τοῖς Πυθαγορείοις κυκλουμένη, καὶ διὰ τῶν ἔμπροσθεν μὲν ἀπεδείξαμεν. παρακείσθω δὲ καὶ νῦν τὰ Ἀρχύτα τοῦ Πυθαγορείου, οὗ μάλιστα καὶ γνήσια λέγεται εἶναι τὰ συγγράμματα. λέγει δ' ἐν τῷ Περὶ μαθηματικῆς εὐθὺς ἐναρχόμενος τοῦ λόγου τάδε·

καλῶς μοι δοκοῦντι τοὶ περὶ τὰ μαθήματα διαγινώσκειν¹ καὶ οὐθὲν ἄτοπον ὀρθῶς αὐτοὺς οἰᾶν² περὶ ἐκάστου θεωρεῖν.³ περὶ γὰρ τῆς τῶν ὅλων φύσεως καλῶς διαγινόντες ἔμελλον καὶ περὶ τῶν κατὰ μέρος, οἰᾶν ἐντι, ὅψεσθαι.⁴ περὶ τε δὴ τῆς τῶν ἀστρῶν ταχυτάτος καὶ ἐπιτολᾶν καὶ δυσίων παρέδωκαν ἀμὴν διάγνωσιν καὶ

¹ διαγινώσκειν Porph.: διαγνώμεναι Nic.: διαγνώμεν Huffman

² οἰᾶν ἐντι Nic.: om. Porph.

³ θεωρεῖν] φρονεῖν Nic.

to divide the ratio into equal parts. From this it follows that in the case of those numbers that are in the same ratio as these, a number does not fall in the middle in such a way as to divide the ratio into equal parts.

Music (D14–D19)

The Production of Sounds (D14–D15)

D14 (B1) Porphyry, *Commentary on Ptolemy's Harmonics*

I showed earlier that the explanation of this cause [scil. the one given by Ptolemy for the production of high-pitched and low-pitched sounds] was ancient and was in circulation among the Pythagoreans. But now let us give a citation from Archytas the Pythagorean too, whose writings are said most of all to also be authentic. He says the following in his *On Mathematics*, right at the beginning of the text:

Those who concern themselves with the mathematical sciences seem to me to make distinctions well, and it is not surprising that they think correctly, about each thing, how they are. For, since they make distinctions well about the nature of the whole, they ought also to see well, about particular things, how they are. And certainly, about the speed of the heavenly bodies, their risings and settings, they have transmitted to us a clear distinction,

⁴ ὀφείσθαι Porph.: καλῶς ὀφείσθαι Nic.

περὶ γαμετρίας καὶ ἀριθμῶν καὶ οὐχ ἥκιστα
περὶ μουσικᾶς.⁵ ταῦτα γὰρ τὰ μαθήματα δο-
κοῦντι ἡμεν⁶ ἀδελφεά.⁷

πρῶτον μὲν οὖν ἐσκέψαντο ὅτι οὐ δυνατόν
ἐστὶν ἡμεν ψόφον μὴ γενηθείσας πληγᾶς τι-
νων ποτ' ἄλλαλα. πλαγὰν δ' ἔφαν γίνεσθαι,
ὅκκα τὰ φερόμενα ἀπαντιάξαντα⁸ ἀλλάλοις
συμπέτη. τὰ μὲν οὖν ἀντίαν φορὰν φερόμενα
ἀπαντιάζοντα αὐτὰ αὐτοῖς συγχαλᾶντα, <τὰ>⁹
δ' ὁμοίως φερόμενα, μὴ ἴσῳ δὲ τάχει, περι-
καταλαμβανόμενα παρὰ¹⁰ τῶν ἐπιφερομένων
τυπτόμενα ποιεῖν ψόφον.

πολλοὺς μὲν δὴ αὐτῶν οὐκ εἶναι¹¹ ἀμῶν τᾷ
φύσει οἴους τε γινώσκεσθαι, τοὺς μὲν διὰ τὰν
ἀσθένειαν τᾶς πλαγᾶς, τοὺς δὲ διὰ τὸ μάκος
τᾶς ἀφ' ἀμῶν ἀποστάσιος, τινὰς δὲ καὶ διὰ
τὰν ὑπερβολὰν τοῦ μεγέθους. οὐ γὰρ παρα-
δύεσθαι ἐς τὰν ἀκοὰν ἀμῶν τὼς μέγας τῶν
ψόφων, ὥσπερ οὐδ' ἐς¹² τὰ σύστημα τῶν τευ-
χέων, ὅκκα πολὺ τις ἐκχέη, οὐδὲν ἐκχεῖται. τὰ

⁵ περί τε δὴ . . . μουσικᾶς] περί τε δὴ τᾶς γεωμετρικᾶς
καὶ ἀριθμητικᾶς καὶ σφαιρικᾶς παρέδωκαν ἄμμιν σαφῆ διά-
γνωσιν, οὐχ ἥκιστα δὲ καὶ περὶ μουσικᾶς Nic. ⁶ εἶμεν g
⁷ post ἀδελφεά hab. περὶ γὰρ ἀδελφεὰ τὰ τῷ ὄντος πρῶτιστα
δύο εἶδεα τὰν ἀναστροφὰν ἔχει Nic.: om. Porph. ⁸ ἀπαν-
τιάξαντα T² in marg.: ἄπαντ' ἄξαντα mss. ⁹ <τὰ>
Diels ¹⁰ περί mss., corr. Stephanus ¹¹ ἔστιν mss., corr.
Stephanus ¹² οὐδ' ἐς Blass: οὐδέ mss.

and so too about geometry and numbers, and especially about music. For these sciences seem to be sisters.¹

First then they observed that it is not possible for a sound to be produced unless there is a striking of some things against each other. And they said that a striking takes place when things in motion encounter one another and collide. Things that move in opposite directions produce a sound as they slow each other down when they meet, and those that move in the same direction, but not at the same speed, when they are overtaken and struck by the ones rushing upon them.

Certainly, many of these [i.e. sounds] cannot be perceived by our nature, some because of the weakness of the striking, others because of the distance separating them from us, some also because of their excessive magnitude. For those sounds that are great do not enter into our ear, just as nothing can be poured into the mouth of a vase, if someone pours out a lot. Among the things that strike sensation, those

¹ The version transmitted by Nicomachus continues as follows: "for they revolve around the first two forms of what exists [i.e. quantity (*plêthos*) and magnitude (*megethos*)], which are sisters." This phrase is generally considered a gloss, but Barker (*Greek Musical Writings*, vol. 2, p. 40, n. 40) thinks that it might go back to Archytas.

μὲν οὖν ποτιπίπτοντα ποτὶ τὰν αἴσθασιν, ἃ μὲν ἀπὸ τὰν πλαγᾶν ταχὺ παραγίνεται καὶ <ἰσχυρῶς>¹³ ὀξέα φαίνεται· τὰ δὲ βραδέως καὶ ἀσθενῶς, βαρέα δοκοῦντι ἡμεν. αἱ γάρ τις ῥάβδον λαβὼν κινοῖ νωθρῶς τε καὶ ἀσθενέως, τῇ πλαγᾷ βαρὺν ποιήσῃ τὸν ψόφον· αἱ δὲ κα ταχύ τε καὶ ἰσχυρῶς, ὀξύν.

οὗ μόνον δὲ κα τούτῳ¹⁴ γνοίημεν, ἀλλὰ καὶ ὅκκα ἅμμες ἢ λέγοντες ἢ αἰείδοντες χρήζομές τι¹⁵ μέγα φθέγξασθαι καὶ ὀξύ, σφοδρῶ τῷ πνεύματι φθεγγόμενοι. ἔτι δὲ καὶ¹⁶ τοῦτο συμβαίνει ὥσπερ ἐπὶ βελῶν· τὰ μὲν ἰσχυρῶς ἀφιέμενα πρόσω φέρεται, τὰ δ' ἀσθενῶς ἐγγύς. τοῖς γὰρ ἰσχυρῶς φερομένοις μᾶλλον ὑπακούει ὁ ἀήρ, τοῖς δ' ἀσθενέως ἡσσον. τῷτὸ¹⁷ δὲ καὶ ταῖς φωναῖς συμβήσεται· τῇ μὲν ὑπὸ τῷ ἰσχυρῷ τῷ πνεύματος φερομένα μεγάλα τε ἡμεν καὶ ὀξέα, τῇ δ' ὑπ' ἀσθενέος μικρὰ τε καὶ βαρέα.

ἀλλὰ μὰν καὶ τούτῳ γὰ κα ἴδοιμες¹⁸ ἰσχυροτάτῳ¹⁹ σαμείῳ, ὅτι τῷ αὐτῷ φθεγξαμένῳ μέγα μὲν πόρσωθέν κ' ἀκούσαιμες· μικρόν δ' οὐδ' ἐγγύθεν. ἀλλὰ μὰν καὶ ἔν γα τοῖς αὐλοῖς τὸ ἐκ τῷ στόματος φερόμενον πνεῦμα ἐς²⁰ μὲν

¹³ <ἰσχυρῶς> Blass ¹⁴ κα τούτῳ Blass: κατὰ τοῦτο mss.: τούτῳ <τοῦτο> Düring ¹⁵ τι Blass: εἰ mss. ¹⁶ φθεγγόμενοι. ἔτι δὲ καὶ φθεγγόμεθα· αἱ τι δὲ <κα μικρόν καὶ βαρὺ, ἀσθενεῖ.> καὶ Düring cum Blass: lac. indic. Diels

that are produced quickly as the result of striking manifest themselves as high-pitched, while those [scil. that are produced] slowly and weakly seem to be low-pitched. For if someone takes a stick and moves it sluggishly and weakly, it will produce a low-pitched sound by striking; but if [scil. one does this] quickly and strongly, it will be high-pitched.

And it is not only in this way that we can know this, but also whenever, speaking or singing, we must utter something loud and high-pitched, we utter it with a very strong breath. Furthermore, this happens as it does in the case of missiles: those that are hurled strongly land far, while those weakly, near. For the air yields more to those that move strongly, and less to those that do so weakly. The same thing will happen for the sounds of the voice: the one that is moved by a strong breath is loud and high-pitched, the one by a weak breath is soft and low-pitched.

What is more, we can also see this by the following very strong sign: the same thing, when it is uttered loudly, we hear from afar; but when softly, not even from nearby. What is more, in the case of *auloi* too, the breath that moves from the mouth to the holes near the

¹⁷ τοῦτο mss., corr. Blass

¹⁸ κατίδοιμες mss., corr. Blass

¹⁹ ἰσχυροτάτῳ Blass: ἰσχυρῶ τόπῳ mss.

²⁰ ὥς mss., corr.

τὰ ἐγγὺς τῷ στόματος τρυπήματα ἐμπίπτουν
διὰ τὰν ἰσχὺν τὰν σφοδρὰν ὀξύτερον ἄχον
ἀφίησιν, ἐς δὲ τὰ πόρσω βαρύτερον, ὥστε
δῆλον ὅτι ἅ ταχεῖα κίνασις ὀξὺν ποιεῖ, ἅ δὲ
βραδεῖα βαρὺν τὸν ἄχον.

ἀλλὰ μὰν καὶ τοῖς ῥόμβοις τοῖς ἐν ταῖς
τελευταῖς κινουμένοις τὸ αὐτὸ συμβαίνει·
ἡσυχᾷ μὲν κινούμενοι βαρὺν ἀφίεντι ἄχον,
ἰσχυρῶς δ' ὀξύν.

ἀλλὰ μὰν καὶ ὁ γὰ²¹ κάλαμος, αἱ κά τις²²
αὐτῷ τὸ κάτω μέρος ἀποφράξας ἐμφυσῇ, ἀφή-
σει <βαρέαν>²³ τινὰ ἀμῖν φωνάν· αἱ δέ κα ἐς
τὸ ἥμισυ ἢ ὀπόστον²⁴ μέρος αὐτῷ, ὀξὺ φθεγ-
ξεῖται. τὸ γὰρ αὐτὸ πνεῦμα διὰ μὲν τῷ μακρῷ
τόπῳ ἀσθενὲς ἐκφέρεται,²⁵ διὰ δὲ τῷ μείονος
σφοδρόν.

εἰπὼν δὲ καὶ ἄλλα περὶ τοῦ διαστηματικὴν εἶναι τὴν
τῆς φωνῆς κίνησιν συγκεφαλαιοῦνται τὸν λόγον ὥς

ὅτι μὲν δὴ τοὶ ὀξεῖς φθόγγοι τάχιον κινέονται,
οἱ δὲ βαρεῖς βράδιον, φανερόν ἀμῖν ἐκ πολ-
λῶν γέγονεν.

²¹ ὁ γὰ V: ὅσα T: ὅτον ἁ cett.
cett. ²³ <βαρέαν> Mullach
²⁵ ἐκφέρεται M: φέρεται cett.

²² αἱ κά τις mG: ἑκατις

²⁴ ὀπόστον <ὦν> Blass

mouth makes a more high-pitched sound when it strikes because of its great force; but when [scil. it moves] to those further away, a more low-pitched one. So that it is clear that a quick motion produces a high-pitched sound, and a slow one a low-pitched one.

What is more, the same thing happens with *rhomboi*² that are whirled around in the mystery initiations: when they are moved gently they emit a low-pitched sound, when strongly a high-pitched one.

What is more, a reed too, if one blocks its lower part and blows into it, will emit for us a <low-pitched> sound; but if it is at the middle or any other place, it will emit a high-pitched one. For the same breath moves weakly when it traverses a long place, and forcefully when it is a smaller one.

After he has said other things too about the fact that the motion of the voice is a function of intervals, he summarizes his argument as follows:

Thus it has become evident to us from many things that high-pitched sounds move more quickly, and low-pitched ones more slowly.

² Flat pieces of wood or metal fixed to a string and whirled around.

D15 (B2) Porph. *In Ptol.* 1.5, p. 93.5–17

Ἀρχύτας δὲ περὶ τῶν μεσοτήτων λέγων γράφει ταῦτα.

μέσαι δ' ἐντι τριῖς¹ τῇ μουσικῇ. μία μὲν ἀριθμητικά, δευτέρα δ' ἡ γεωμετρικά, τρίτα δ' ὑπεναντία, ἃν καλέοντι ἁρμονικάν.² ἀριθμητικὰ μὲν, ὅκκα ἔωντι τρεῖς ὅροι κατὰ τὰν τοίαν³ ὑπεροχὰν ἀνάλογον, ᾧ⁴ πρᾶτος δευτέρου ὑπερέχει, τούτῳ⁵ δεύτερος τρίτου ὑπερέχει. καὶ ἐν ταύτῃ <τῇ>⁶ ἀναλογία συμπίπτει εἶμεν τὸ τῶν μειζόνων ὅρων διάστημα μείον, τὸ δὲ τῶν μειόνων μείζον. ἃ⁷ γεωμετρικὰ δὲ ὅκκα ἔωντι οἷος⁸ ὁ πρᾶτος ποτὶ τὸν δεύτερον, καὶ ὁ δεύτερος ποτὶ τὸν τρίτον. τούτων δ' οἱ μείζονες ἴσον ποιοῦνται τὸ διάστημα καὶ οἱ μείους. ἃ δ' ὑπεναντία, ἃν καλοῦμεν ἁρμονικάν, ὅκκα ἔωντι <τοῖοι, ᾧ>⁹ ὁ πρᾶτος ὅρος ὑπερέχει τοῦ δευτέρου αὐταύτου¹⁰ μέρει, τούτῳ ὁ μέσος τοῦ

¹ ἐντι τριῖς Wallis: ἐν τισι τρισί mss.

² ἃν . . . ἁρμονικάν secl. Huffman

³ τὰν τοίαν Blass: ταύτωιαν G: τὰν τωίαν p V: τὰν τῶ A

⁴ ᾧ mss., corr. Blass

⁵ τούτου mss., corr. Blass

⁶ ἐν ταύτῃ <τῇ> Mullach: ἐνταῦθα mss.

⁷ τὰ mss.: corr. Blass

⁸ οἷος Blass: οἷς GV: εἷς p

⁹ <τοῖοι ᾧ> Diels

¹⁰ αὐταύτου Blass: ἀνταύτου g V: αὐτὰν τοῦ A

D15 (B2) Porphyry, *Commentary on Ptolemy's Harmonics*

Archytas, speaking about the means, writes the following [scil. in his *On Music*, cf. 92.29):

There are three means in music: the first is the arithmetic mean, the second is the geometric one, the third is the subcontrary one, which is called harmonic. It is arithmetic when three terms are in proportion according to the following kind of excess: that by which the first exceeds the second is the same as that by which the second exceeds the third. And in this proportion it turns out that the interval between the larger terms is smaller, while the one between the smaller terms is larger.¹ It is geometric when what the first term is to the second one, the second one is to the third one. Among these, the larger terms have an interval that is equal to the smaller ones.² The subcontrary one, which we call harmonic, is when they are <such> that, by that part of itself <by which> the first term exceeds the second one, by this part of the third term the middle term

¹ An example of an arithmetic proportion is the one between the numbers 12, 9, and 6. The arithmetic mean is 9 (arithmetic because $12 - 9 = 9 - 6$). The ratio $9/6$ is equal to $3/2$, which is that of the fifth (the larger interval), the ratio $12/9$ is equal to $4/3$, which is that of the fourth (the smaller interval).

² An example of a geometric proportion is the one between the numbers 24, 12, and 6: $24/12 = 12/6$. The geometric mean is 12. In both cases the ration is equal to $2/1$, which is that of the octave.

τρίτου ὑπερέχει τοῦ τρίτου μέρει. γίνεται δ' ἐν ταύτα¹¹ τῇ ἀναλογίᾳ τὸ τῶν μειζόνων ὄρων διάστημα μειζον, τὸ δὲ τῶν μειόνων μείον.

¹¹ ἐνταῦθα p

Concords and Tetrachord (D16–D17)

D16 (A18) Porph. *In Ptol.* 1.6, p. 104.12–13

ἔλεγον δ' οἱ περὶ τὸν Ἀρχύταν ἐνὸς φθόγγου γίνεσθαι κατὰ τὰς συμφωνίας τὴν ἀντίληψιν τῇ ἀκοῇ.

D17 (A16) Ptol. *Harm.* 1.13–14, pp. 30.3–31.17

περὶ τῆς κατὰ Ἀρχύταν τῶν γενῶν καὶ τῶν τετραχόρδων διαιρέσεως.

Ἀρχύτας δὲ ὁ Ταραντῖνος μάλιστα τῶν Πυθαγορείων ἐπιμεληθεὶς μουσικῆς πειρᾶται μὲν τὸ κατὰ τὸν λόγον ἀκόλουθον διασφύζειν οὐκ ἐν ταῖς συμφωνίαις μόνον ἀλλὰ καὶ ταῖς τῶν τετραχόρδων διαιρέσεσιν, ὥς οἰκείου τῇ φύσει τῶν ἐμμελῶν ὄντος τοῦ συμμέτρου τῶν ὑπεροχῶν [. . .] τρία μὲν τοίνυν οὗτος ὑφίσταται¹ γένη, τό τε ἐναρμόνιον καὶ τὸ χρωματικὸν καὶ τὸ διατονικόν· ἐκάστου δὲ αὐτῶν ποιεῖται τὴν

¹ ὑφίσταται (bis) MWEfg: ὑφιστα W¹A: ὑφίστησι V ss. GAγp

exceeds the third one. In this proportion it happens that the interval of the larger terms is larger, while that of the smaller terms is smaller.³

³ An example of a harmonic proportion is the one between the numbers 12, 8, and 6. The harmonic mean is 8, because $12 - 8 = 4$ (equal to one third of the first term, 12) and $8 - 6 = 2$ (equal to one third of the last term, 6). Musically, one has the two ratios $12/8 (= 3/2)$, that is, again, the fifth (cf. n. 1), and $8/6 = 4/3$, that is, the fourth (cf. *ibid.*). One also sees that if one inserts first the subcontrary (harmonic) mean and then the arithmetic mean between 12 and 6, one obtains the ratio corresponding to the tone, $9/8$.

Concords and Tetrachord (D16–D17)

D16 (A18) Porphyry, *Commentary on Ptolemy's Harmonics*

Archytas and his followers used to say that what hearing perceives in the case of concords is a single sound.

D17 (A16) Ptolemy, *Harmonics* [On the classification of the genera and of the tetrachords according to Archytas]

Archytas of Tarentum, who of all the Pythagoreans studied music the most, tries to preserve what is in conformity with reason, not only in the concords, but also in the division of the tetrachord, on the idea that commensurability of excesses is by nature proper to what is harmonious [i.e. the intervals] [. . .]. So he establishes three genera: enharmonic, chromatic, and diatonic. He makes the division of

διαίρεσιν οὕτως· τὸν μὲν γὰρ ἐπόμενον λόγον ἐπὶ τῶν τριῶν γενῶν τὸν αὐτὸν ὑφίσταται¹ καὶ ἐπὶ κζ', τὸν δὲ μέσον ἐπὶ μὲν τοῦ ἐναρμονίου ἐπὶ λε', ἐπὶ δὲ τοῦ διατονικοῦ ἐπὶ ζ', ὥστε καὶ τὸν ἡγούμενον τοῦ μὲν ἐναρμονίου γένους συνάγεσθαι ἐπὶ δ', τοῦ δὲ διατονικοῦ ἐπὶ η'. τὸν δὲ ἐν τῷ χρωματικῷ γένει δεύτερον ἀπὸ τοῦ ὀξυτάτου φθόγγου λαμβάνει διὰ τοῦ τὴν αὐτὴν θέσιν ἔχοντος ἐν τῷ διατονικῷ· φησὶ γὰρ λόγον ἔχειν τὸν ἐν τῷ χρωματικῷ δεύτερον ἀπὸ τοῦ ὀξυτάτου πρὸς τὸν ὅμοιον τὸν ἐν τῷ διατονικῷ τὸν τῶν σνς' πρὸς τὰ σμγ'. συνίσταται² δὴ τὰ τοιαῦτα³ τετράχορδα κατὰ τοὺς ἐκκειμένους λόγους ἐν πρώτοις ἀριθμοῖς τούτοις· ἂν γὰρ τοὺς μὲν ὀξυτάτους τῶν τετραχόρδων ὑποστησώμεθα, ,αφιβ', τοὺς δὲ βαρυτάτους κατὰ τὸν ἐπίτριτον λόγον τῶν αὐτῶν ,βις', ταῦτα μὲν ποιήσει ἐπὶ κζ' πρὸς τὰ ,αλμδ'. καὶ τοσούτων ἔσονται πάλιν ἐν τοῖς τρισὶ γένεσιν οἱ δεύτεροι ἀπὸ τῶν βαρυτάτων· τῶν δ' ἀπὸ τοῦ ὀξυτάτου δευτέρων ὁ μὲν τοῦ ἐναρμονίου γένους ἔσται ,αωγ'. ταῦτα γὰρ πρὸς μὲν τὰ ,αλμδ' ποιεῖ τὸν ἐπὶ λε' λόγον, πρὸς δὲ τὰ ,αφιβ' τὸν ἐπὶ δ'. ὁ δὲ τοῦ διατονικοῦ γένους τῶν αὐτῶν ἔσται ,αψα'. καὶ ταῦτα γὰρ πρὸς μὲν τὰ ,αλμδ' τὸν ἐπὶ ζ'

¹ ὑφίσταται (bis) MWEfg: ὑφιστᾶ W¹A: ὑφίστησι V ss.
 ΓΑγρ ² συνίσταται] συνίστησι ss. G

each of them as follows: he posits that the 'following ratio [i.e. the one that corresponds to the lower interval of the tetrachord] is the same in the three genera, i.e. 28:27, but that the middle ratio [i.e. the one that corresponds to the middle interval] in the enharmonic genus is 36:35, in the diatonic genus 8:7, so that the 'leading ratio' [i.e. the one that corresponds to the higher interval] in the enharmonic genus becomes 5:4, and in the diatonic genus 9:8. In the chromatic genus he posits the note that comes second after the highest-pitched one by recurring to the note that has the same position in the diatonic genus. For he says that the note that comes second after the highest-pitched one in the chromatic genus stands in a ratio of 256:243 to the note that is similar to it in the diatonic genus. According to the ratios that I have set out, such tetrachords are constituted in the following way with regard to the lowest numbers: if we posit 1512 as the highest-pitched note in the tetrachords, and 2016 as the lowest-pitched one of the same [scil. probably tetrachords], in accordance with the epitrite ratio [i.e. 4:3], this latter number will make the ratio 28:27 in relation to 1944, and this will also be the quantity, in the three genera, of the second notes after the lowest-pitched one. As for the second notes after the highest-pitched one, the one in the enharmonic genus will be 1890. For this number gives the ratio 36:35 in relation to 1944, and the ratio 5:4 in relation to 1512. The equivalent note in the diatonic genus will be 1701, for this gives the ratio 8:7 in relation to 1944 and the ratio 9:8 in relation

³ τοιαῦτα τρία f ss. AV¹

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ποιεῖ λόγον· πρὸς δὲ τὰ ,αφιβ' τὸν ἐπὶ ἡ· ὁ δὲ
τοῦ χρωματικοῦ καὶ αὐτὸς ἔσται τῶν αὐτῶν
,αψιβ'· ταῦτα γὰρ λόγον ἔχει πρὸς τὰ ,αψα', ὃν
τὰ σνς' πρὸς τὰ σμγ'.

Music and Other Sciences (D18–D19)

Music and Grammar (D18)

D18 (< A19c Huffman) Quintil. *Inst. or.* 1.10.17

[. . .] si quidem Archytas atque Evenus¹ etiam subiectam
grammaticen musicae putaverunt [. . .].

¹ evenus B (. . . nus A): aristoxenus mss. *plerique*

Music and Physics (D19)

D19 (A19b) Ps.-Plut. *Mus.* 1147A

τὴν γὰρ τῶν ὄντων φορὰν καὶ τὴν τῶν ἀστέρων κίνη-
σιν οἱ περὶ Πυθαγόραν καὶ Ἀρχύταν καὶ Πλάτωνα
καὶ οἱ λοιποὶ τῶν ἀρχαίων φιλοσόφων οὐκ ἄνευ μου-
σικῆς γίγνεσθαι καὶ συνεστάναι ἔφασκον· πάντα γὰρ
καθ' ἀρμονίαν ὑπὸ τοῦ θεοῦ κατεσκευάσθαι.

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to 1512. The equivalent note in the chromatic genus will be 1792; for this has in relation to 1701 the ratio that 256 has in relation to 243.¹

¹ There follows a table, not reproduced here (see Barker, *Greek Musical Writings*, vol. 2, p. 45).

See also **PYTHS. ANON. D26**

Music and Other Sciences (D18–D19)

Music and Grammar (D18)

D18 (< A19c Huffman) Quintilian, *Training in Oratory*
[. . .] if it is true that Archytas and Evenus thought that
grammar was subordinated to music [. . .].

Music and Physics (D19)

D19 (≠ DK) Ps.-Plutarch, *On Music*

Pythagoras, Archytas, and Plato and the rest of the ancient philosophers frequently said that without music the motion of things and the movement of the heavenly bodies do not exist and do not come about. For they say that all things have been arranged by god in conformity with harmony.

Physics (D20–D22)

Motion (D20)

D20 (A23) Eudem. in Simpl. *In Phys.*, p. 431.12 (< Eudem. Frag. 60 Wehrli]

βέλτιον γὰρ αἷτια λέγειν ταῦτα ὥσπερ Ἀρχύτας [. . .
= **PYTHS. R13**].

Cosmology (D21)

D21 (< A24) Eudem. in Simpl. *In Phys.*, p. 467.26–32

Ἀρχύτας δέ, ὥς φησιν Εὐδήμος [Frag. 65 Wehrli],
οὕτως ἡρώτα τὸν λόγον· ἐν τῷ ἐσχάτῳ¹ οὐρανῷ γενό-
μενος, πότερον ἐκτείναιμι ἂν τὴν χεῖρα ἢ τὴν ῥάβδον
εἰς τὸ ἔξω, ἢ οὐ; καὶ τὸ² μὲν οὖν μὴ ἐκτείνειν ἄτοπον·
[. . .] ἀεὶ οὖν βαδιεῖται τὸν αὐτὸν τρόπον ἐπὶ τὸ ἀεὶ
λαμβανόμενον πέρας, καὶ ταὐτὸν ἐρωτήσῃ, καὶ εἰ ἀεὶ
ἕτερον ἔσται ἐφ' ὃ ἡ ῥάβδος, δῆλον ὅτι καὶ ἄπειρον.

¹ post ἐσχάτῳ hab. mss. οἷον τῷ ἀπλανεῖ quod ut glossema
secl. Huffman

² ἢ οὐ. καὶ τὸ F: ἢ οὐκ ἂν. τὸ E, corr. Diels

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Physics (D20–D22)

Motion (D20)

D20 (A23) Eudemus in Simplicius, *Commentary on Aristotle's Physics*

[Scil. instead of identifying motion with what is unequal, irregular, etc., as Plato does,] it is better to say, like Archytas, that these are its causes [. . .].

Cosmology (D21)

D21 (< A24) Eudemus in Simplicius, *Commentary on Aristotle's Physics*

As Eudemus says, Archytas asked the following question: "If I arrived at the furthest point of the heavens, could I stretch out my hand or a stick towards what was outside, or not?" Now, it would be very strange indeed not to be able to extend it. [. . .]¹ Therefore each time he will go in the same way towards the limit that is chosen each time and will ask the same question, and if each time there is something else to which the stick can go, it is clear that it is an unlimited [scil. body].²

¹ The following sentence as well could go back to Archytas.

² In Archytas, the argument was surely intended to establish the existence of the void beyond the world, not that of an unlimited body.

*Vision (D22)***D22** (< A25) Apul. *Apolog.* 15–16

[. . .] an [. . .] radii nostri [. . .] seu tantum oculis profecti sine ullo foris amminiculo, ut Archytas putat, [. . .] cum alicui corpori inciderunt spisso et splendido et levi, paribus angulis quibus inciderant resultent ad faciem suam reduces atque ita, quod extra tangant ac visant, id intra speculum imaginentur.

*The Geometry of Animal Physiology (D23)***D23** (A23a) Ps.-Arist. *Probl.* 16.9 915a25–32

διὰ τί τὰ μόρια τῶν φυτῶν καὶ τῶν ζώων, ὅσα μὴ ὀργανικά, πάντα περιφερῇ, τῶν μὲν φυτῶν τὸ στέλεχος καὶ οἱ πτόρθοι, τῶν δὲ ζώων κνήμαι, μηροί, βραχίονες, θώραξ· τρίγωνον δὲ οὐδὲ πολύγωνον οὔτε ὅλον οὔτε μориόν ἐστιν; πότερον, ὥσπερ Ἀρχύτας ἔλεγεν, διὰ τὸ ἐν τῇ κινήσει τῇ φυσικῇ ἐνείναι τὴν τοῦ ἴσου ἀναλογίαν (κινεῖσθαι γὰρ ἀνάλογον πάντα), ταύτην δὲ μόνην εἰς αὐτὴν ἀνακάμπτειν, ὥστε κύκλους ποιεῖν καὶ στρογγύλα, ὅταν ἐγγένηται;

*Pleasure (D24)***D24** (< A9) Cic. *Sen.* 12.39, 41

[Cato:] accipite enim, optimi adulescentes, veterem orationem Archytæ Tarentini, magni in primis et praeclari

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Vision (D22)

D22 (< A25) Apuleius, *Apology*

[. . .] or else our [scil. visual] rays [. . .], only issuing forth from our eyes without any external support, as Archytas thinks, [. . .] are reflected at an angle equal to that of their incidence when they fall upon a body that is dense, shiny, and smooth, and then, returning towards the face from which they were emitted, they form in this way an internal image of what they touch and visit outside [. . .].

The Geometry of Animal Physiology (D23)

D23 (A23a) Ps.-Aristotle, *Problems*

Why are those parts of plants and animals that do not have an instrumental function all rounded (like the stem and shoots of plants, or the shanks, thighs, arms, and trunk of animals), while neither the whole nor any part [scil. of these parts] is triangular or polygonal? Is it, as Archytas said, because the proportion of equality is present in natural motion (because all things move in proportion), and this is the only one that turns back to itself, so that it produces circles and curves when it is in something?¹

¹ For a tentative explanation of this difficult text, see Huffman, pp. 518–22.

Pleasure (D24)

D24 (< A9) Cicero, *Cato the Elder. On Old Age*

[Cato:] Listen, excellent young men, to an ancient speech of Archytas of Tarentum, an especially great and distin-

viri, quae mihi tradita est [. . .]. nullam capitaliorem pestem quam voluptatem corporis hominibus dicebat a natura datam, cuius voluptatis avidae libidines temere et ecfrenate ad potiendum incitarentur. [. . .] [41] quocirca nihil esse tam detestabile tamque pestiferum quam voluptatem, siquidem ea, cum maior esset atque longinquior, omne animi lumen exstingueret.

*Appendix: Some Fragments from a
(Pseudepigraphic?) Treatise on
Political Theory (D25)*

D25 (≠ DK) (Ps.-?) Archyt. *Leg.* in Stob.

a 4.1.135 (Frag. 1, p. 33.2–18 Thesleff)

Ἀρχύτα Πυθαγορείου ἐκ τοῦ Περὶ νόμου καὶ δικαιοσύνης.

νόμος ποτ' ἀνθρώπου ψυχάν τε καὶ βίον ὅπερ
ἁρμονία ποτ' ἀκοάν τε καὶ φωνάν· ὃ τε γὰρ νό-

guished man, which has been transmitted to me [. . .]. He used to say that no deadlier pestilence had been bestowed upon humans by nature than the pleasure of the body, since our desires, greedy for this pleasure, are spurred on to possess it rashly and without impediment. [. . .] [41] That is why there is nothing so detestable and pestilential as pleasure, since when it is too strong and lasts too long it extinguishes the whole light of the soul.¹

¹ Huffman admits the possibility that the whole argument against bodily pleasures in Cicero might go back in the last instance to Archytas himself (see especially p. 331). Aristotle, *Nicomachean Ethics* 7.12 1152b16, also seems to preserve an echo.

*Appendix: Some Fragments from a
(Pseudepigraphic?) Treatise on
Political Theory (D25)¹*

¹ Scholars are divided on whether this treatise is genuine or not (for most of the others that have been questioned, there is little doubt about their inauthenticity): see Huffman, pp. 599–606. The two passages that we include here as samples might also have been placed among the Pseudo-Pythagorean writings of which we provide samples (cf. **PYTHS. R53–R54**); this is why we print them here in italics.

D25 (≠ DK) (Ps.-?) Archytas, *On Law and Justice*, from Stobaeus, *Anthology*

a

From Archytas, Pythagorean, from his On Law and Justice:

Law is to a human being's soul and life what harmony (harmonia) is to hearing and voice: for law

μος παιδεύει μὲν τὰν ψυχάν, συνίστησι δὲ τὸν βίον, ἃ τε ἁρμονία ἐπιστάμονα μὲν ποιεῖ τὰν ἀκοάν, ὁμόλογον δὲ τὰν φωνάν. φημι δ' ἐγὼ πᾶσαν κοινωνίαν ἐξ ἄρχοντος καὶ ἀρχομένου συνεστάμεν καὶ τρίτον νόμων. νόμων δὲ ὁ μὲν ἔμψυχος βασιλεὺς, ὁ δὲ ἄψυχος γράμμα. πρῶτος ὢν ὁ νόμος· τούτῳ γὰρ¹ ὁ μὲν βασιλεὺς νόμιμος, ὁ δ' ἄρχων ἀκόλουθος, ὁ δ' ἀρχόμενος ἐλεύθερος, ἃ δ' ὅλα κοινωνία εὐδαίμων· καὶ τούτῳ² παραβάσει <ὁ>³ μὲν βασιλεὺς τύραννος, ὁ δ' ἄρχων ἀνακόλουθος, ὁ δ' ἀρχόμενος δοῦλος, ὁ δ' κοινωνία κακοδαίμων. συνείρονται μὲν γὰρ ταὶ πράξεις ἐκ τοῦ ἄρχειν καὶ τοῦ ἄρχεσθαι καὶ τρίτον ἐκ τοῦ κρατεῖν. τὸ μὲν οὖν ἄρχεν τῷ κρείσσοнос οἰκῆον, τὸ δ' ἄρχεσθαι τῷ χερήονος, τὸ δὲ κρατεν ἀμφοτέρων· ἄρχει μὲν γὰρ τὸ λόγον ἔχον τὰς ψυχᾶς, ἄρχεται δὲ τὸ ἄλογον, κρατοῦντι δὲ τῶν παθέων ἀμφότερα. γίνεται γὰρ ἐκ τᾶς ἐκατέρων συναρμογᾶς⁴ ἀρετά, αὗτα δὲ καὶ ἀπὸ τᾶν ἀδονᾶν καὶ ἀπὸ τᾶν λυπᾶν εἰς ἀρεμίαν καὶ ἀπάθειαν ἀπάγει τὰν ψυχάν.

¹ τούτων γὰρ mss., corr. Thesleff: τούτω γὰρ <ἐμμονᾶ>
 Hense ² τούτων mss., corr. Meineke ³ <ὁ> Meineke
⁴ συναρμογᾶς M: ἀρμογᾶς A

b 4.1.137 (Frag. 3, pp. 33.29–34.14 Thesleff)

ἐν ταύτῳ.

educates the soul and organizes life, and harmony makes hearing understandable and voice concordant (homologon). I myself say that every community is constituted by someone who rules [i.e. a magistrate] and someone who is ruled, and thirdly by laws. Of laws, the one that is animate is a king, the one that is inanimate is what is written. What is primary, then, is the law: for by its means the king is law-abiding, he who rules [i.e. the magistrate] is in compliance, he who is ruled is free, and the whole community is fortunate; and by transgression of this the king is a tyrant, the man who rules [i.e. the magistrate] is not in compliance, the man who is ruled is a slave, and the whole community is unfortunate. For [scil. political] actions result from the conjunction of ruling, being ruled, and thirdly dominating (kratein). Therefore to rule is suitable for the better person, to be ruled for the worse one, and to dominate for both: for what rules is the part of the soul that has reason, what is ruled is the irrational part, but both of these conditions dominate over the affections (pathê). For out of the fitting together (sunarmoga) of both of these is produced excellence [or: virtue], and this leads the soul away from pleasures and away from pains towards tranquility and impassibility.

b

In the same [scil. book]:

συμφέρων¹ δὲ τῇ πολιτικῇ κοινωνίᾳ, αἵκα μὴ
 μόναρχος ἦ καὶ ἰδιωφελὴς ὁ νόμος, κοινωφελὴς
 δὲ καὶ διὰ πάντων διατείνων· δεῖ δὲ καὶ ποτὶ τὰν
 χώραν καὶ ποτὶ τὼς τόπως ἀποβλέπειν τὸν νό-
 μον· οὔτε γὰρ γὰ τὼς αὐτὼς καρπῶς οὔτε ψυχὰ
 ἀνθρώπων τὰν αὐτὰν ἀρετὰν παραδέξασθαι δύ-
 ναται. διὸ τὸ δίκαιον τοῖ μὲν ἀριστοκρατικὸν
 τοῖ δὲ δημοκρατικὸν τοῖ δὲ ὀλιγαρχικὸν ποι-
 οῦντι· καὶ τὸ ἀριστοκρατικὸν κατὰ τὰν ὑπενα-
 ντίαν μεσότατα· τοῖς μὲν γὰρ μέζουσι μέζοντας
 τὼς² λόγως, τοῖς δὲ μείουσι μείοντας διανέμει ἡ
 ἀναλογία αὐτὰ· τὸ δὲ δαμοκρατικὸν κατὰ τὰν
 γεωμετρικάν· ἐν γὰρ ταῦτα τοῖ λόγοι ἴσοι τῶν
 μειζόνων καὶ μειόνων μεγεθέων· τὸ δὲ ὀλιγαρ-
 χικὸν καὶ τυραννικὸν κατὰ τὰν ἀριθμητικάν·
 ἀντιάζει γὰρ αὐτὰ τῇ ὑπεναντίᾳ· τοῖς γὰρ μεί-
 ουσι μέζοντας τοὺς λόγως, τοῖς δὲ μείζουσι μείο-
 νας. ταὶ μὲν ὦν ἰδέαι τῆς διανομῆς τοσαῦται,
 ταὶ δὲ εἰκόνες ἐν ταῖς πολιτείαις καὶ τοῖς οἴκοις
 θεωροῦνται· τιμαὶ τε γὰρ καὶ κολάσεις καὶ ἀρ-
 χαὶ <ἦ>³ ἐξ ἴσω τοῖς μείζουσι καὶ μείουσι διανέ-
 μονται, ἦ ἐξ ἀνίσω ἢ τῷ ἀρετῇ ὑπερέχεν ἢ τῷ
 πλούτῳ ἢ καὶ δυνάμει. τὸ μὲν ὦν ἐξ ἴσου δημο-
 κρατικόν, τὸ δὲ ἐξ ἀνίσω ἀριστοκρατικὸν ἢ ὀλι-
 γαρχικόν.

¹ συμφέροντα mss., corr. Halm
 δὲ, secl. Gaisford

³ <ἦ> Halm

² post τὼς hab. mss.

The law is beneficial for the political community if it is not monarchical and advantageous for a private person but is instead advantageous for the public and extends to everyone. And the law should have regard for the country [or: area] and for places: for neither can a [i.e. every] ground receive the same crops nor can men's soul [i.e. every one] receive the same excellence [or: virtue]. It is for this reason that some people adopt a justice that is aristocratic, some one that is democratic, and some one that is oligarchic. And the aristocratic one is in accordance with the subcontrary mean: for this proportion (analogia) assigns greater ratios (logoi) to those that are greater and lesser ones to those that are lesser. The democratic one is in accordance with the geometric [scil. mean]: for in this one the ratios are equal for all the magnitudes, the greater and the lesser ones. The oligarchical and tyrannical one is in accordance with the arithmetic [scil. mean]: for this is opposed to the subcontrary [scil. mean], for [scil. it assigns] greater ratios to those that are lesser and lesser ones to those that are greater. These then are the various forms of distribution, and their manifestations are observed in polities and in households. For honors, punishments, and directive tasks are distributed <either> equally to the greater and the lesser, or unequally, by virtue of superiority in virtue, wealth, or else power. Thus democratic [scil. justice distributes] equally, aristocratic or oligarchic unequally.

15. HICETAS [HIC.]

Nothing is known about Hicetas; he is generally considered to be, like Ecphantus, one of the later representatives of Pythagoreanism, dating from the end of the fifth or the beginning of the fourth century BC. Like Eurytus and Ecphantus, he is of interest for the contribution his doctrine makes to a specific point of the Pythagorean heritage. In the present case this is a point of astronomy, a crucial one to be sure, given that what is involved is nothing less than the rotation of the earth.

BIBLIOGRAPHY

See the titles listed in the General Introduction to Chapters 10–18.

OUTLINE OF THE CHAPTER

D

The Motion of Our Earth (D1)
Two Earths (D2)

HICETAS [50 DK]

D

The Motion of Our Earth (D1)

D1 (50.1) Cic. *Acad.* 2.39.123

Hicetas Syracosius, ut ait Theophrastus [Frag. 240 FHS&G] caelum solem lunam stellas supera denique omnia stare censet, neque praeter terram rem ullam in mundo moveri: quae cum circum axem se summa celeritate convertat et torqueat, eadem effici omnia quasi stante terra caelum moveretur.

Two Earths (D2)

D2 (50.2) Aët. 3.9.2 (Ps.-Plut.) [περὶ γῆς]

[. . .] Ἰκέτης ὁ Πυθαγόρειος δύο, ταύτην καὶ τὴν ἀντίχθονα.

HICETAS

D

The Motion of Our Earth (D1)

D1 (50.1) Theophrastus in Cicero, *Prior Academics*

Hicetas of Syracuse, as Theophrastus says, thinks that the heavens, the sun, the moon, the stars, in short everything on high, is at rest and that nothing in the world moves except the earth: because this turns and rotates on its axis at an extremely high speed, exactly the same effect is produced as if the heavens were moving while the earth was at rest.

Two Earths (D2)

D2 (50.2) Aëtius

[. . .] Hicetas the Pythagorean: [scil. that there are] two [scil. earths], this one and the counter-earth.

16. ECPHANTUS [ECPH.]

Nothing is known about Ecphantus, but scholars date him, like Hicetas, to the end of the fifth or the beginning of the fourth century BC. Ecphantus' interest, like Eurytus' and Hicetas', lies in his contribution to specific aspects of the Pythagorean heritage. In the present case this involves his materialistic interpretation in atomic terms (perhaps following Eurytus) of the Pythagorean monadic units, combined with a providential perspective, and an astronomical system in which the earth is in the center and rotates on its axis.

BIBLIOGRAPHY

See the titles listed in the General Introduction to Chapters 10–18.

OUTLINE OF THE CHAPTER

P

Origin (P1)

D

A General Summary (D1)

The Principles (D2)

The World (D3–D4)

The Motion of Our Earth (D5)

ECPHANTUS [51 DK]

P

Origin (P1)

P1 (< 58A.) Iambl. VP 267

[1]: Κροτωνιᾶται [. . .] Ἐκφαντος [. . .] [cf. **PYTH. b T30[1]**].

D

A General Summary (D1)

D1 (51.1) (Ps.-?) Hippol. Ref. 1.15

Ἐκφαντός τις Συρακούσιος ἔφη μὴ εἶναι ἀληθινὴν τῶν ὄντων λαβεῖν γνῶσιν· ὀρίζει δὲ ὡς νομίζει,¹ τὰ μὲν πρῶτα ἀδιαίρετα εἶναι σώματα καὶ παραλλαγὰς αὐτῶν τρεῖς ὑπάρχειν, μέγεθος σχῆμα δύναμιν, ἐξ ὧν τὰ αἰσθητὰ γίνεσθαι. εἶναι δὲ τὸ πλῆθος αὐτῶν, ὠρισμένων κατὰ² τοῦτο, ἄπειρον. κινεῖσθαι δὲ τὰ σώματα

¹ ὀρίζειν . . . νομίζειν Diels: ἀλλ' ἕκαστος ὀρίζει ὡς νομίζει τὰ πράγματα L i.m.

ECPHANTUS

P

Origin (P1)

P1 (< 58A.) Iamblichus, *Life of Pythagoras*

[1] From Croton: [. . .] Ecphantus [. . .].

D

A General Summary (D1)

D1 (51.1) (Ps.-?) Hippolytus, *Refutation of All the Heresies*

A certain Ecphantus of Syracuse said that it is not possible to acquire true knowledge of the things that are, and he makes definitions just as he supposes: the first things are indivisible bodies and their variations are of three kinds, size, form, and capability, and it is out of these that visible things come to be. The number of these, defined in this way (?), is unlimited. These bodies are moved neither by

² ὥρισμένον καὶ mss., corr. Duncker-Schneidewin

μήτε ὑπὸ βάρους μήτε πληγῆς, ἀλλ' ὑπὸ θείας δυνάμεως, ἣν νοῦν καὶ ψυχὴν προσαγορεύει. τούτου³ μὲν οὖν τὸν κόσμον εἶναι ιδέαν,⁴ δι' ὃ καὶ σφαιροειδῆ ὑπὸ θείας⁵ δυνάμεως γεγονέναι. τὴν δὲ γῆν μέσον κόσμον κινεῖσθαι περὶ τὸ αὐτῆς κέντρον ὡς πρὸς ἀνατολήν.

³ τοῦ mss., corr. Roeper ⁴ εἶναι ιδέαν Roeper: εἰδέναι ιδεῖν mss. ⁵ θείας Duncker-Schneidewin: μιᾶς mss.

The Principles (D2)

D2 (51.2) Aët. 1.3.19 (Stob.) [περὶ ἀρχῶν]

Ἐκφαντος Συρακούσιος, εἰς τῶν Πυθαγορείων, πάντων τὰ ἀδιαίρετα σώματα καὶ τὸ κενόν. τὰς γὰρ Πυθαγορικὰς μονάδας οὗτος πρῶτος ἀπεφῆνατο σωματικάς.

The World (D3–D4)

D3 (51.3) Aët. 2.1.2 (Stob.) [περὶ κόσμου]

[. . .] Ἐκφαντος [. . .] εἶνα τὸν κόσμον.

D4 (51.4) Aët. 2.3.3 (Stob.) [εἰ ἔμψυχος [scil. ὁ κόσμος] καὶ προνοία διοικούμενος]

Ἐκφαντος ἐκ μὲν τῶν ἀτόμων συνεστάναι τὸν κόσμον, διοικεῖσθαι δὲ ὑπὸ¹ προνοίας.

¹ ὑπὸ cod. Monac. 396: ἀπὸ mss. optimi

ECPHANTUS

their weight nor by striking, but by a divine power, which he calls mind and soul. The world has the shape of this, and that is why it came into existence as spherical by divine power. The earth, the middle of the world, moves eastwards around its own center.

The Principles (D2)

D2 (51.2) Aëtius

Ecphantus of Syracuse, one of the Pythagoreans: indivisible bodies and the void [scil. are the principles] of all things. For he is the first to have declared that the Pythagorean monads are corporeal.

The World (D3–D4)

D3 (51.3) Aëtius

[. . .] Ecphantus [. . .]: there is [scil. only] one world.

D4 (51.4) Aëtius

Ecphantus: the world is composed out of atoms, but it is administered by providence.

The Motion of Our Earth (D5)

D5 (51.5) Aët. 3.13.3 (Ps.-Plut.; Eus.) [περὶ κινήσεως γῆς]

Ἡρακλείδης ὁ Ποντικός καὶ Ἐκφαντος ὁ Πυθαγόρειος κινούσι μὲν τὴν γῆν, οὐ μὲν γε μεταβατικῶς, ἀλλὰ τρεπτικῶς¹ τροχοῦ δίκην ἐνηξονισμένην,² ἀπὸ δυσμῶν ἐπ' ἀνατολὰς περὶ τὸ ἴδιον αὐτῆς κέντρον.

¹ ἀλλὰ τρεπτικῶς Eus. PE 15.58.3: om. Plut. ² ἐνηξονισμένην Reiske: ἐνιζωνισμένην M: ἐνι- et lac. 4 litt. m: ἐνιζομένην Π: ἐν ἄξονι στρεφομένην Eus.

ECPHANTUS

The Motion of Our Earth (D5)

D5 (A5) Aëtius

Heraclides Ponticus and Ecphantus the Pythagorean make the earth move, not by displacement, but by turning like a wheel on its axis, from west to east around its own center.

17. PYTHAGOREAN
DOCTRINES NOT ATTRIBUTED
BY NAME
[PYTHS. ANON.]

The reasons why many Pythagorean doctrines are not attributed to a specific author have to do with the particular history of this school (see the General Introduction to Chapters 10–18), and it would most often be futile to try to assign them to an individual or to date them: in many cases, it is quite possible, or indeed probable, that they were shared more or less in common by a number of thinkers; in others, a single author or a particular orientation might well be lurking behind the name of the school without our having any way of identifying it. Nonetheless a certain number of texts, especially ones deriving from Aristotle, overlap manifestly or probably with the doctrine of Philolaus, who seems indeed to have been one of his principal sources when he explains certain aspects—the most philosophical ones—of Pythagorean doctrine. We have marked these texts by cross-references from one chapter to the other.

EARLY GREEK PHILOSOPHY IV

BIBLIOGRAPHY

See the titles listed in the General Introduction to Chapters 10–18.

OUTLINE OF THE CHAPTER

D

A Representative Version of the Pythagorean Doctrine According to the First Book of Aristotle's Metaphysics (D1–D2)

General Summary (D1)

The Principles (D2)

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PYTHAGOREAN DOCTRINES

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(D27–D30)

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PYTHAGOREAN DOCTRINES NOT ATTRIBUTED BY NAME [58 DK]

D

*A Representative Version of the Pythagorean
Doctrine According to the First Book of
Aristotle's Metaphysics (D1–D2)
General Summary (D1)*

D1 (> 58B.4) Arist. *Metaph.* A5 985b23–986a21

ἐν δὲ τούτοις καὶ πρὸ τούτων οἱ καλούμενοι Πυθα-
γόρειοι τῶν μαθημάτων ἀψάμενοι πρῶτοι ταῦτα¹ προ-
ήγαγον² καὶ ἐντραφέντες ἐν αὐτοῖς τὰς τούτων ἀρχὰς
τῶν ὄντων ἀρχὰς³ ᾤήθησαν εἶναι πάντων. ἐπεὶ δὲ
τούτων οἱ ἀριθμοὶ φύσει πρῶτοι, ἐν δὲ τούτοις τοῖς
ἀριθμοῖς⁴ ἐδόκουν θεωρεῖν ὁμοιώματα πολλὰ τοῖς
οὐσί καὶ γιγνομένοις, μᾶλλον ἢ ἐν πυρὶ καὶ γῇ καὶ
ὔδατι, ὅτι τὸ μὲν τοιονδὶ τῶν ἀριθμῶν πάθος δικαιο-

¹ ταῦτά τε A^b
om. A^b

² προήγον E
⁴ τοῖς ἀριθμοῖς, om. A^b

³ τῶν ὄντων ἀρχὰς

PYTHAGOREAN DOCTRINES NOT ATTRIBUTED BY NAME

D

*A Representative Version of the Pythagorean
Doctrine According to the First Book of Aristotle's
Metaphysics (D1–D2)
General Summary (D1)*

D1 (> 58B.4) Aristotle, *Metaphysics*

Contemporary with these authors [scil. those natural philosophers who admit a plurality of causes, Empedocles, Anaxagoras, and Democritus] and before them, the people called Pythagoreans, who were the first ones to interest themselves in the mathematical disciplines (*mathêmata*), made them advance, and since they had been nourished by them they thought that the principles of these were the principles of all the things that are. But since, in the case of these [i.e. the mathematical disciplines], the numbers are first by nature, and since they thought that they could find (*theorein*) in them many similarities with the things that are and come to be—more than in fire, earth, and water, namely that [or: since] this attribute (*pathos*) of numbers is justice, that one is soul and intellect, that one

σύνη τὸ δὲ τοιονδὶ ψυχὴ τε⁵ καὶ νοῦς ἕτερον δὲ καιρὸς καὶ τῶν ἄλλων ὥς εἰπεῖν ἕκαστον ὁμοίως, ἔτι δὲ τῶν ἀρμονιῶν ἐν ἀριθμοῖς ὀρῶντες τὰ πάθη καὶ τοὺς λόγους· ἐπεὶ δὴ⁶ τὰ μὲν ἄλλα τοῖς ἀριθμοῖς ἐφαίνοντο⁷ τὴν φύσιν ἀφωμοιώσθαι⁸ πᾶσαν,⁹ οἱ [986a] δ' ἀριθμοὶ πάσης τῆς φύσεως πρῶτοι, τὰ τῶν ἀριθμῶν στοιχεῖα τῶν ὄντων στοιχεῖα πάντων ὑπέλαβον εἶναι, καὶ τὸν ὅλον οὐρανὸν ἀρμονίαν εἶναι καὶ ἀριθμόν· καὶ ὅσα εἶχον¹⁰ ὁμολογούμενα ἔν¹¹ τε τοῖς ἀριθμοῖς καὶ ταῖς ἀρμονίαις πρὸς τὰ τοῦ οὐρανοῦ πάθη καὶ μέρη καὶ πρὸς τὴν ὅλην διακόσμησιν, ταῦτα συνάγοντες ἐφήρμοττον. καὶ εἴ τί που¹² διέλειπε, προσεγλίχοντο¹³ τοῦ συνευρομένην πᾶσαν αὐτοῖς εἶναι τὴν πραγματείαν· λέγω δ' οἶον, ἐπειδὴ τέλειον ἢ δεκάς εἶναι δοκεῖ καὶ πᾶσαν περιεληφέναι τὴν τῶν ἀριθμῶν φύσιν,¹⁴ καὶ τὰ φερόμενα κατὰ τὸν οὐρανὸν δέκα μὲν εἶναί φασιν, ὄντων δὲ ἐννέα μόνον¹⁵ τῶν φανερῶν διὰ τοῦτο δεκάτην τὴν ἀντίχθονα ποιοῦσιν. διώρισται δὲ περὶ τούτων ἐν ἑτέροις ἡμῖν ἀκριβέστερον. ἀλλ' οὐ δὴ χάριν ἐπερχόμεθα, τοῦτό ἐστιν ὅπως λάβωμεν καὶ παρὰ τούτων τίνας εἶναι τιθέασιν τὰς ἀρχὰς καὶ πῶς εἰς τὰς εἰρημένας ἐμπίπτουσιν αἰτίας. φαίνονται δὴ¹⁶ καὶ οὗτοι τὸν ἀριθμὸν νομίζοντες ἀρχὴν εἶναι καὶ ὥς ὕλην τοῖς

⁵ τε om. E ⁶ ἐπειδὴ mss., corr. Christ ⁷ ἐφαίνετο
E ⁸ ἀφωμοιώσθαι recc.: ἀφομοιώσθαι A^b: ἀφομοιωθή-
ναι E ⁹ πᾶσιν E: πάντα fort. Alex., conl. Bonitz ¹⁰ εἶ-
χεν A^b ¹¹ ἔν A^b: δεικνύναι ἔν E ¹² που E: πολὺ A^b
¹³ προσεγλίχοντο E ¹⁴ εἶναι . . . φύσιν E: om. A^b

is the right moment, and so too for almost each of the other things—and furthermore they saw that the attributes and the ratios of harmonies reside in numbers—since then all the other things seemed to resemble numbers in their whole nature and [986a] numbers are first in all of nature, they supposed that the elements of numbers are the elements of all the things that are and that the whole of the heavens is harmony and number; and everything that they were able to put into concord, both in numbers and in harmonies, with the attributes and parts of the heavens and with the whole organization of the world, all this they collected and fitted together (*ephar-mottein*). And if anything at all was missing, they did their very best to make sure that their whole theory would be coherent. I mean for example that, since the decad seems to be perfect and to contain the whole nature of numbers, they also say that the bodies moving in the heavens are ten, but given that there are only nine visible ones, for this reason they add the counter-earth as the tenth. I have discussed this subject more exactly elsewhere.¹ But the reason why we have discussed this is so that we can grasp, in the case of these people too, what the principles are that they posit and how they fall under the causes we have mentioned [i.e. the four causes]. Well, it is clear that these people too [scil. like other natural philosophers] think that number is a principle, both as the matter for the things

¹ Probably a reference to his lost work *On the Pythagoreans* (cf. **PYTHS. R6c**).

¹⁵ *μόνον* recc.: *μόνων* EA^b

¹⁶ *δὴ* E: *δὲ* A^b

οὐσι καὶ ὡς πάθη τε καὶ ἔξεις, τοῦ δὲ ἀριθμοῦ στοι-
 χεῖα τό τε¹⁷ ἄρτιον καὶ τὸ περιττόν, τούτων δὲ τὸ μὲν
 πεπερασμένον τὸ δὲ ἄπειρον,¹⁸ τὸ δ' ἐν ἐξ ἀμφοτέρων
 εἶναι τούτων (καὶ γὰρ ἄρτιον εἶναι καὶ περιττόν¹⁹), τὸν
 δ' ἀριθμὸν ἐκ τοῦ ἐνός, ἀριθμοὺς δέ, καθάπερ εἴρηται,
 τὸν ὅλον οὐρανόν [. . . = D6].

¹⁷ τε om. E ¹⁸ πεπερασμένον τὸ δ' ἄπειρον E: ἄπει-
 ρον τὸ δὲ πεπερασμένον A^b ¹⁹ καὶ . . . περιττόν E: om.
 A^b

The Principles (D2)

D2 (< 58B.8) Arist. *Metaph.* A5 987a9–20

μέχρι μὲν οὖν τῶν Ἰταλικῶν καὶ χωρὶς ἐκείνων μορυ-
 χώτερον¹ εἰρήκασιν οἱ ἄλλοι περὶ αὐτῶν² [. . .]. οἱ δὲ
 Πυθαγόρειοι δύο μὲν τὰς ἀρχὰς κατὰ τὸν αὐτὸν
 εἰρήκασιν τρόπον, τοσοῦτον δὲ προσεπέθεσαν ὃ καὶ
 ἴδιον αὐτῶν ἐστίν, ὅτι τὸ πεπερασμένον καὶ τὸ ἄπει-
 ρον³ οὐχ ἐτέρας τινὰς ὤήθησαν εἶναι φύσεις, οἷον πῦρ
 ἢ γῆν ἢ τι τοιοῦτον ἕτερον, ἀλλ' αὐτὸ τὸ ἄπειρον καὶ
 αὐτὸ τὸ ἐν οὐσίαν εἶναι τούτων ὧν κατηγοροῦνται, διὸ
 καὶ ἀριθμὸν εἶναι τὴν οὐσίαν ἀπάντων. περί τε τούτων
 οὖν τοῦτον ἀπεφήναντο τὸν τρόπον [. . . = D3].

¹ μορυχώτερον vel μοναχώτερον legit Alex. In *Metaph.*
 p. 46.23–24: μαλακώτερον A^b (et Alex., p. 46.5 O, et p. 46.16
 mss.): μετριώτερον E (et Alex., p. 46.5 A) ² τῶν αὐτῶν E
³ post ἄπειρον hab. A^b καὶ τὸ ἐν: om. E

that are and as their attributes and states, that the elements of number are the even and the odd, that of these the one is limited and the other is unlimited, and that the One comes from both of these (for it is both even and odd) [cf. **PHILOL. D9**], and number comes from the one, and that the whole of the heavens, as I have said, is numbers.

The Principles (D2)

D2 (< 58B.8) Aristotle, *Metaphysics*

Until the Italians [i.e. the Pythagoreans], then, and except for them, the others have spoken about these [i.e. the causes] rather obscurely¹ [. . .]. The Pythagoreans said in the same way [scil. as the other philosophers in question] that there are two principles, but they also added something that was peculiar to them, in that they thought that the limited and the unlimited are not certain other natures like fire, earth, or something else of this sort, but that the unlimited itself and the One itself are the substance of those things of which they are predicated; and that is why number is the substance of all things. So this is how they spoke about these matters [. . .].

¹ The meaning of the term translated here as 'rather obscurely' (*moruchôteron*) was already uncertain in antiquity. Alexander of Aphrodisias mentions another interpretation, 'not very consistent'; and the manuscript tradition presents other terms.

Definition (D3–D4)

D3 (< 58B.8) Arist. *Metaph.* A5 987a20–21

[. . . = **D2**] καὶ περὶ τοῦ τί ἐστὶν ἤρξαντο μὲν λέγειν
καὶ ὀρίζεσθαι [. . . = **PYTHS. R15**].

D4 (58B.4) Arist. *EN* 5.8 1132b21–23

δοκεῖ δέ τισι καὶ τὸ ἀντιπεπονθὸς εἶναι ἀπλῶς δίκαιον,
ὥσπερ οἱ Πυθαγόρειοι ἔφασαν ὠρίζοντο γὰρ ἀπλῶς
τὸ δίκαιον τὸ ἀντιπεπονθὸς ἄλλῳ.¹

¹ ἄλλῳ om. L^bM^b

The Explanation of Nature (D5)

D5 (< 58B.22) Arist. *Metaph.* A8 989b29–990a5

οἱ μὲν οὖν καλούμενοι Πυθαγόρειοι ταῖς μὲν ἀρχαῖς
καὶ τοῖς στοιχείοις ἐκτοπωτέως χρῶνται τῶν φυσιο-
λόγων [. . .], διαλέγονται μέντοι καὶ πραγματεύονται
περὶ φύσεως πάντα· γεννῶσί τε γὰρ τὸν οὐρανόν,
[990a] καὶ περὶ τὰ τοῦτου μέρη καὶ τὰ πάθη καὶ τὰ
ἔργα διατηροῦσι τὸ συμβαῖνον, καὶ τὰς ἀρχὰς καὶ τὰ
αἵτια εἰς ταῦτα καταναλίσκουσιν, ὥς ὁμολογοῦντες
τοῖς ἄλλοις φυσιολόγοις ὅτι τό γε ὄν τοῦτ' ἐστὶν ὅσον
αἰσθητόν ἐστι καὶ περιείληφεν ὁ καλούμενος οὐρανός
[. . . cf. **PYTHS. R18, R19**].

PYTHAGOREAN DOCTRINES

Definition (D3–D4)

D3 (< 58B.8) Aristotle, *Metaphysics*

[. . .] they also began to speak about what a thing is and to give definitions [. . .].

D4 (58B.4) Aristotle, *Nicomachean Ethics*

It seems to some people that suffering in return (*to anti-peponthos*) is simply what is just, as the Pythagoreans said. For they defined justice simply as “suffering in return with someone else.”

The Explanation of Nature (D5)

D5 (< 58B.22) Aristotle, *Metaphysics*

The people called Pythagoreans use principles and elements in a stranger way than the natural philosophers do [. . .] even though their discussion and study is entirely about nature. For they generate the heavens [990a] and they observe what happens regarding its parts and the effects it undergoes and produces. And they expend the principles and causes for [scil. explaining] these questions, which indicates that they agree with the other natural philosophers that what exists is only what is perceptible and is contained within the so-called heavens [. . .].

EARLY GREEK PHILOSOPHY IV

The Series of Contraries (D6–D9)

Another Version of the Doctrine of Principles (D6)

D6 (< 58B.5) Arist. *Metaph.* A5 986a22–27

[. . . = **D1**] ἕτεροι δὲ τῶν αὐτῶν τούτων τὰς ἀρχὰς δέκα λέγουσιν εἶναι τὰς ‘κατὰ συστοιχίαν’ λεγομένας, πέρας ἄπειρον, περιττὸν ἄρτιον, ἐν πλῆθος, δεξιὸν ἀριστερόν, ἄρρεν θῆλυ, ἡρεμοῦν κινούμενον, εὐθὺ καμπύλον, φῶς σκότος, ἀγαθὸν κακόν, τετράγωνον ἑτερόμηκες [. . . = **ALCM. D5**].

Examples of Classification (D7–D9)

D7 (58B.6) Arist. *EN* 1.4 1096b5

πιθανώτερον δ’ εἰκόασιν οἱ Πυθαγόρειοι λέγειν περὶ αὐτοῦ, τιθέντες ἐν τῇ τῶν ἀγαθῶν συστοιχίᾳ τὸ ἔν.

D8 (58B.7) Arist. *EN* 2.5 1106b29

τὸ γὰρ κακὸν τοῦ ἀπείρου, ὡς οἱ Πυθαγόρειοι εἵκαζον, τὸ δ’ ἀγαθὸν τοῦ πεπερασμένου.

D9 (58B.30) Simpl. *In Cael.*, p. 386.20–23 (= Arist. *Frag.* 200 Rose)

τὸ γοῦν δεξιὸν καὶ ἄνω καὶ ἔμπροσθεν καὶ ἀγαθὸν ἐκάλουν, τὸ δὲ ἀριστερόν καὶ κάτω καὶ ὀπίσθεν καὶ κακὸν ἔλεγον, ὡς αὐτὸς Ἀριστοτέλης ἱστορήσεν ἐν τῇ τῶν Πυθαγορείους ἀρεσκόντων συναγωγῇ.

PYTHAGOREAN DOCTRINES

The Series of Contraries (D6–D9)

Another Version of the Doctrine of Principles (D6)

D6 (< 58B.5) Aristotle, *Metaphysics*

[. . .] Others among these same people [i.e. the Pythagoreans] say that the principles are ten, those that are called the ones ‘in series’ (*sustoikhia*): limit unlimited, odd even, one multiple, right left, male female, resting moving, straight curved, light darkness, good bad, square rectangle [. . .].

Examples of Classification (D7–D9)

D7 (58B.6) Aristotle, *Nicomachean Ethics*

The Pythagoreans seem to have spoken about it [i.e. the good] more convincingly [scil. than the Platonists who posit the Forms], in placing the one in the series of good things.

D8 (58B.7) Aristotle, *Nicomachean Ethics*

For evil belongs to what is unlimited, as the Pythagoreans represented it, and good to what is limited.

D9 (58B.30) Aristotle in Simplicius, *Commentary on Aristotle’s On the Heavens*

They also called the right the higher, and the front ‘good,’ and the left the lower, and behind ‘bad,’ as Aristotle has reported in his *Collection of the Opinions of the Pythagoreans*.

EARLY GREEK PHILOSOPHY IV

Numbers (D10–D21)

The Nature of Numbers and

Noteworthy Numbers (D10–D17)

The One, the Even, and the Odd (D10–D14)

D10 (58B.9) Arist. *Metaph.* M6 1080b16–18

καὶ οἱ Πυθαγόρειοι δ' ἓνα, τὸν μαθηματικόν, πλὴν οὐ
κεχωρισμένον ἀλλ' ἐκ τούτου τὰς αἰσθητὰς οὐσίας
συνεστάναι φασίν [. . . = **PYTHS. R23**].

D11 (< 47 A21) Arist. in Theon Sm. *Exp.*, p. 22.5–9

Ἀριστοτέλης δὲ ἐν τῷ Πυθαγορικῷ τὸ ἓν φησιν [Frag.
199 Rose] ἀμφοτέρων μετέχειν τῆς φύσεως· ἀρτίῳ μὲν
γὰρ προστεθὲν περιττὸν ποιεῖ, περιττῷ δὲ ἄρτιον, ὃ
οὐκ ἂν ἡδύνατο, εἰ μὴ ἀμφοῖν τοῖν φυσέοιν μετεῖχε·
διὸ καὶ ἀρτιοπέριττον καλεῖσθαι τὸ ἓν.

D12

a (< 58B.28) Arist. *Phys.* 3.4 203a10–15

καὶ οἱ μὲν τὸ ἄπειρον εἶναι τὸ ἄρτιον (τοῦτο γὰρ ἐν-
απολαμβανόμενον καὶ ὑπὸ τοῦ περιττοῦ περαινώμενον
παρέχειν τοῖς οὐσι τὴν ἀπειρίαν· σημεῖον δ' εἶναι
τούτου τὸ συμβαῖνον ἐπὶ τῶν ἀριθμῶν· περιτιθεμένων
γὰρ τῶν γνωμόνων περὶ τὸ ἓν καὶ χωρὶς ὅτε μὲν ἄλλο
αἰεὶ γίγνεσθαι τὸ εἶδος, ὅτε δὲ ἓν).

PYTHAGOREAN DOCTRINES

Numbers (D10–D21)

The Nature of Numbers and

Noteworthy Numbers (D10–D17)

The One, the Even, and the Odd (D10–D14)

D10 (< 58B.9) Aristotle, *Metaphysics*

And the Pythagoreans say that it is the One, the mathematical number, [scil. that is the principle], except that it is not separated but that it is out of this that the perceptible substances are constituted [. . .].

D11 (< 47 A21) Aristotle in Theon of Smyrna, *Aspects of Mathematics Useful for Reading Plato*

Aristotle in his Pythagorean book says that the unit has a share in the nature of both [scil. of the even and the odd]. For when it is added to the even it makes the odd, and when to the odd the even, and this would not be possible if it did not have a share in both natures. That is why the unit is called even-odd [cf. **PHILOL. D9**; **ARCHY. D7**].

D12

a (< 58B.28) Aristotle, *Physics*

And they [i.e. the Pythagoreans] said that the unlimited is the even. For when this is cut off, enclosed, and limited by the odd, it provides the things that are with the element of infinity. A sign of this is what happens to numbers: the gnomons being placed around the one and separately, now the species becomes continuously different, now it is one [. . .].¹

¹ A notoriously obscure passage.

b (\neq DK) Simpl. *In Phys.*, p. 457.12–16

καλῶς δὲ καὶ οὕτως ἐπέβαλε τῇ ἐξηγήσει ὁ Ἀλέξανδρος, ὅτι τὸ μὲν “περιτιθεμένων τῶν γνωμόνων” τὴν κατὰ τοὺς περιττοὺς ἀριθμοὺς σχηματογραφίαν ἐνδείκνυται, τὸ δὲ “καὶ χωρὶς” τὴν ἀριθμητικὴν προσθήκην χωρὶς περιθέσεως σχηματικῆς γινομένην ἐπὶ τῶν ἀρτίων.

c (58B.28) Stob. 1 *Proem.* 10 (p. 22.16–19 Wachsmuth)

τῇ μονάδι τῶν ἐφεξῆς περισσῶν γνωμόνων περιτιθεμένων ὁ γινόμενος αἰὲς τετράγωνός ἐστι τῶν δὲ ἀρτίων ὁμοίως περιτιθεμένων ἑτερομήκεις καὶ ἄνιστοι πάντες ἀποβαίνουσιν, ἴσος δὲ ἰσάκις οὐδεὶς [. . . = **D14**].

D13 ($<$ 58B.26) Arist. *Metaph.* N3 1091a23–24

τοῦ μὲν οὖν περιττοῦ γένεσιν οὐ φασιν, ὥς δηλονότι τοῦ ἀρτίου οὕσης γενέσεως.

D14 (43 Mansfeld/Primavesi) Stob. 1 *Proem.* 10 (p. 22.19–23 Wachsmuth)

[. . . = **D11c**] καὶ μὴν εἰς δύο διαιρουμένων ἴσα τοῦ μὲν περισσοῦ μονὰς ἐν μέσῳ περίεστι, τοῦ δὲ ἀρτίου κενὴ λείπεται χώρα καὶ ἀδέσποτος καὶ ἀνάριθμος, ὥς ἂν ἐνδεοῦς καὶ ἀτελοῦς ὄντος.

PYTHAGOREAN DOCTRINES

b (\neq DK) Simplicius, *Commentary on Aristotle's Physics*
Alexander has correctly remarked in his interpretation that "when the gnomons are placed around" refers to the figure that is traced for odd numbers, and "and separately" to the arithmetical addition, which in the case of even numbers is produced separately from the disposition in a figure.

c (58B.28) Stobaeus, *Anthology*

When a series of odd gnomons are arranged around the unit, then what is produced is always a square; but when even ones are arranged in the same way, they all turn out to be rectangles with sides that are unequal and different lengths, and none is an equal multiplied by an equal.

D13 ($<$ 58B.26) Aristotle, *Metaphysics*

They [i.e. the Pythagoreans] say that there is no generation of the odd, which evidently presupposes that there is a generation of the even.

D14 (\neq DK) Stobaeus, *Anthology*

[. . .] If they are divided, in the case of the odd a unit remains in the middle, while in the case of the even an empty place remains, without owner and without number, as though it were something lacking and incomplete.

The Three (D15)

D15 (58B.17) Arist. *Cael.* 1.1 268a10–13

καθάπερ γάρ φασι καὶ οἱ Πυθαγόρειοι, τὸ πᾶν καὶ τὰ πάντα τοῖς τρισὶν ὥρισται· τελευτὴ γὰρ καὶ μέσον καὶ ἀρχὴ τὸν ἀριθμὸν ἔχει τὸν τοῦ παντός, ταῦτα δὲ τὸν τῆς τριάδος.

The tetraktys (D16–D17)

D16 (cf. 58B.15) Sext. Emp. *Adv. Math.* 7.94

[. . . = **D19**] ὅτε δὲ τὸν φυσικώτατον ὁμνύναι ὄρκον οὕτωςί,

οὐ μὰ τὸν ἀμετέρα κεφαλᾷ παραδόντα τετρακτύν,
παγὰν ἀενάου φύσεως ῥιζώματ' ἔχουσιν. [. . . =
PYTH. c D10]

D17 (58B.16) Ps.-Arist. *Probl.* 15.3 910b36 [διὰ τί πάν-
τες ἄνθρωποι, καὶ βάρβαροι καὶ Ἕλληνες, εἰς τὰ
δέκα καταριθμοῦσι]

ἢ ὅτι ἐν δέκα ἀναλογίαις τέτταρες κυβικοὶ ἀριθμοὶ
ἀποτελοῦνται, ἐξ ὧν φασὶν ἀριθμῶν οἱ Πυθαγόρειοι
τὸ πᾶν συνεστάναι;

PYTHAGOREAN DOCTRINES

The Three (D15)

D15 (58B.17) Aristotle, *On the Heavens*

For as the Pythagoreans too say, the whole and all things are defined by the three. For the end, the middle, and the beginning give the number of the whole, and what they give is that of the triad.

The tetraktys (D16–D17)

D16 (cf. 58B.15) Sextus Empiricus, *Against the Logicians*

[. . . = **D19**] at other times [scil. the Pythagoreans had the custom] of swearing this oath, which was in the greatest conformity with nature:

No, by the man who bequeathed to our very self the
tetraktys,
The source that holds the roots of ever-flowing
nature.

D17 (58B.16) Ps.-Aristotle, *Problems* [Why do all humans, both barbarians and Greeks, count by tens?]

Is it because in ten proportions (*analogiai*), four cubic numbers are produced, from which the Pythagoreans say the whole is constituted?¹

¹ The first proportion is $n : n^2 = n^2 : n^3$; the second one is $n^2 : n^3 = n^3 : n^4$; and so on, until the tenth one $n^{10} : n^{11} = n^{11} : n^{12}$. In this way, among the terms $n, n^2, n^3 \dots n^{12}$ we have four cubes: n^3, n^6, n^9 , and n^{12} .

EARLY GREEK PHILOSOPHY IV

Numbers and Things (D18–D22)

In General (D18–D19)

D18 (< 58B.12) Arist. *Metaph.* A6 987b11–12

οἱ μὲν γὰρ Πυθαγόρειοι μιμήσει τὰ ὄντα φασὶν εἶναι
τῶν ἀριθμῶν [. . .].

D19 (cf. 58B.15) Sext. *Emp. Adv. Math.* 7.94

καὶ τοῦτο ἐμφαίνοντες οἱ Πυθαγορικοὶ ποτὲ μὲν εἰώ-
θασι λέγειν τὸ

– υ υ | – υ υ | – ἀριθμῶ δέ τε πάντ' ἐπέοικεν

ὅτε δὲ [. . . = **D16**].

Particular Examples (D20)

D20

a (< 58B.4) Arist. *Metaph.* M4 1078b21–23

οἱ δὲ Πυθαγόρειοι πρότερον περὶ τινων ὀλίγων, ὧν
τοὺς λόγους εἰς τοὺς ἀριθμοὺς ἀνῆπτον, οἷον τί ἐστι
καιρὸς ἢ τὸ δίκαιον ἢ γάμος [. . .].

b (≠ DK) Alex. *In Metaph.*, p. 75.21–28

οἷον ἦν ᾧοντο τάξιν ἔχειν τὴν δυνάδα, ταύτην ἔλεγον
ἔχειν τὴν τάξιν ἐν τῷ κόσμῳ τὴν δόξαν, ἐπειδὴ δυνὰς
δόξα ἦν αὐτοῖς. πάλιν ἦν τάξιν ἢ ἐπτάς, ταύτην ἀπ-

PYTHAGOREAN DOCTRINES

Numbers and Things (D18–D20) *In General (D18–D19)*

D18 (< 58B.12) Aristotle, *Metaphysics*

The Pythagoreans say that the things that are exist by imitation of the numbers [. . .].

D19 (cf. 58B.15) Sextus Empiricus, *Against the Logicians*

To indicate this [scil. that the criterion of all things is number], the Pythagoreans had the habit of saying sometimes,

all things resemble number,

at other times [. . . = **D16**].

See also **D1**

Particular Examples (D20)

D20

a (< 58B.4) Aristotle, *Metaphysics*

The Pythagoreans earlier [scil. than Democritus] [scil. had proposed definitions] concerning a small number of things, whose definitions they attached to numbers, like what is the right moment, or what is just, or marriage [. . .].

b (≠ DK) Alexander of Aphrodisias, *Commentary on Aristotle's Metaphysics*

Thus they said that opinion had the position in the world that they thought was the position that the dyad had, since for them opinion was the dyad. So too the position that

εδίδοσαν ἐν τῷ κόσμῳ τῷ καιρῷ, ἐπεὶ καὶ τὸν ἐπτά
ἀριθμὸν¹ καιρὸν ἡγοῦντο εἶναι. μικρὸν δὲ ἄνωθεν τοῦ
καιροῦ ἢ κάτωθεν ἐποιοῦν, εἴ ἔτυχεν, ἀδικίαν ἢ κρί-
σιν, ὅτι καὶ ἡ τῶν αὐτῶν τούτοις ἀριθμῶν τάξις ἡ
αὐτὴ ἦν. γράφεται δὲ ἔν τισιν ἀντιγράφοις ἀντὶ τοῦ
ἀδικίαν ἀνικίαν· ἀνικίαν δὲ φασιν ὑπὸ τῶν Πυθαγο-
ρείων λέγεσθαι τὴν πεντάδα.

¹ post ἀριθμὸν hab. mss. καὶ, del. Bonitz

The Discovery of Irrational Magnitudes (D21)

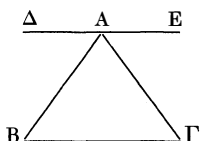
D21 (63 Mansfeld/Primavesi) Schol. in Eucl. 10.1 (vol.
5.2, p. 415.7–11 Heiberg)

ἦλθον δὲ τὴν ἀρχὴν ἐπὶ τὴν τῆς συμμετρίας ζήτησιν
οἱ Πυθαγόρειοι πρῶτοι αὐτὴν ἐξευρόντες ἐκ τῆς τῶν
ἀριθμῶν κατανοήσεως. κοινὸν γὰρ ἀπάντων ὄντος
μέτρου τῆς μονάδος καὶ ἐπὶ τῶν μεγεθῶν κοινὸν
μέτρον εὑρεῖν οὐκ ἡδυνήθησαν.

Geometry (D22–D23)

D22 (< 58B.21) Eudem. in Procl. In Eucl. Prop. 32, theor.
22, p. 379.2–16 (< Eudem. Frag. 136 Wehrli)

Εὐδήμος δὲ ὁ Περιπατητικὸς εἰς τοὺς Πυθαγορείους



ἀναπέμπει τὴν τοῦδε τοῦ θεω-
ρήματος εὑρεσιν, ὅτι τρίγωνον
ἅπαν δυσὶν ὀρθαῖς ἴσας ἔχει
τὰς ἐντὸς γωνίας. καὶ δεικνύναι
φησὶν αὐτοὺς οὕτως τὸ προκεί-

PYTHAGOREAN DOCTRINES

seven had they assigned in the world to the right moment, because they thought that the right moment was the number seven too. And they put a little above or below the right moment, for example, injustice or judgment, because the order of the numbers that are identical to these things was the same; in some manuscripts, 'nonvictory' (*anikia*) is found written instead of 'injustice' (*adikia*); and they say that the pentad was called nonvictory by the Pythagoreans.

The Discovery of Irrational Magnitudes (D21)

D21 (\neq DK) Scholia on Euclid's *Elements*

It was the Pythagoreans who in the beginning were the first to come upon the study of commensurability, which they discovered on the basis of their reflection on numbers. For while the monad is the common measure of all of these, they were not able to discover a common measure of magnitudes too.

See also **PYTH. b T20**

Geometry (D22–D23)

D22 (< 58B.21) Eudemus in Proclus, *Commentary on Euclid's Elements of Geometry*

Eudemus the Peripatetic attributes to the Pythagoreans the discovery of this theorem, according to which every triangle has its internal angles equal to two straight lines. And he says that they demonstrated it as follows: Let there

μενον. ἔστω τρίγωνον τὸ ΑΒΓ, καὶ ἤχθω διὰ τοῦ Α τῇ ΒΓ παράλληλος ἡ ΔΕ. ἐπεὶ οὖν παράλληλοί εἰσιν αἱ ΒΓ ΔΕ, καὶ αἱ ἐναλλάξ ἴσαι εἰσίν, ἴση ἄρα ἡ μὲν ὑπὸ ΔΑΒ τῇ ὑπὸ ΑΒΓ, ἡ δὲ ὑπὸ ΕΑΓ τῇ ὑπὸ ΑΓΒ. κοινὴ προσκείσθω ἡ ΒΑΓ. αἱ ἄρα ὑπὸ ΔΑΒ ΒΑΓ ΓΑΕ τουτέστιν αἱ ὑπὸ ΔΑΒ ΒΑΕ, τουτέστιν αἱ δύο ὀρθαὶ ἴσαι εἰσὶ ταῖς τοῦ ΑΒΓ τριγώνου τρισὶ γωνίαις. αἱ ἄρα τρεῖς τοῦ τριγώνου δύο ὀρθαῖς εἰσιν ἴσαι.

D23 (< 58B.20) Eudem. in Procl. *In Eucl.* 1.44, p. 419.15–18 (< Eudem. Frag. 137 Wehrli)

ἔστι μὲν ἀρχαῖα, φασὶν οἱ περὶ τὸν Εὐδημον, καὶ τῆς τῶν Πυθαγορείων μούσης εὐρήματα ταῦτα, ἣ τε παραβολὴ τῶν χωρίων καὶ ἡ ὑπερβολὴ καὶ ἡ ἔλλειψις.

Theory of Music (D24–D26)

D24 (58B.18) Porph. *In Ptol. Harm.*, p. 115.4–9 (< Eudem. Frag. 142 Wehrli)

[. . .] Εὐδημος ἐν τῷ πρώτῳ τῆς Ἀριθμητικῆς ἱστορίας, λέγων περὶ τῶν Πυθαγορείων ταυτὶ κατὰ λέξιν· “ἔτι δὲ τοὺς τῶν τριῶν συμφωνιῶν λόγους τοῦ τε διὰ τεσσάρων καὶ τοῦ διὰ πέντε καὶ τοῦ διὰ πασῶν ὅτι συμβέβηκεν ἐν πρώτοις ὑπάρχειν τοῖς ἐννέα· β' γὰρ καὶ γ' καὶ δ' γίνεται ἐννέα.”

be a triangle ABC, and let the straight line DE be drawn parallel to BC through A. Since BC and DE are parallel, the alternating angles are equal. Therefore the angle DAB is equal to the angle ABC, and the angle EAC is equal to the angle ACB. Let the angle BAC be added to both. Therefore the angles DAB, BAC, and CAE, that is, the angles DAB and BAE, that is, two straight lines, are equal to the three angles of the triangle ABC. Therefore the three angles of a triangle are equal to two straight lines.

D23 (< 58B.20) Eudemus in Proclus, *Commentary on Euclid's Elements of Geometry*

Those who follow Eudemus say that the following discoveries are ancient and belong to the Muse of the Pythagoreans: the application of areas, the hyperbola, and the ellipse.

Theory of Music (D24–D26)

D24 (58B.18) Eudemus in Porphyry, *Commentary on Ptolemy's Harmonics*

Eudemus in the first book of his *History of Arithmetic*, saying the following about the Pythagoreans, quoted exactly: “[scil. they say] moreover that the ratio of the three concords, of the fourth (*diatessarôn*), the fifth (*diapente*), and the octave (*diapasôn*), are within the nine first numbers. For two plus three plus four make nine.”

D25 (\neq DK) Porph. *In Ptol. Harm.*, p. 96.21–23
(= Theophr. Frag. 717 FHS&G)

οἱ μὲν Πυθαγόρειοι τὴν μὲν διὰ τεσσάρων συμφωνίαν
‘συλλαβὴν’ ἐκάλουν, τὴν δὲ διὰ πέντε ‘δι’ ὀξειᾶν,’ τὴν
δὲ διὰ πασῶν τῷ συστήματι, ὥς καὶ Θεόφραστος
ἔφη, ἔθεντο ἁρμονίαν.

D26 (> 47 A17) Porph. *In Ptol. Harm.*, p. 107.15–108.21

τῶν Πυθαγορικῶν τινες, ὥς Ἀρχύτας καὶ Δίδυμος
ἱστοροῦσι, μετὰ τὸ καταστήσασθαι τοὺς λογους τῶν
συμφωνιῶν συγκρίνοντες αὐτοὺς πρὸς ἀλλήλους καὶ
τοὺς συμφῶνους μᾶλλον ἐπιδεικνύναι βουλόμενοι
τοιούτων τι ἐποιοῦν. πρῶτους λαβόντες ἀριθμούς, οὓς
ἐκάλουν ‘πυθμένας,’ τῶν τοὺς λόγους τῶν συμφωνιῶν
ἀποτελούντων—τουτέστιν ἐν οἷς ἐλαχίστοις ἀριθμοῖς
συμφωνίαι ἀποτελοῦνται, ὥς λόγου χάριν ἢ μὲν διὰ
πασῶν ἐν πρῶτοις θεωρεῖται ἀριθμοῖς τοῖς β’ καὶ α’.
πρῶτος γὰρ διπλάσιος ὁ δύο τοῦ ἐνὸς καὶ πυθμὴν τῶν
ἄλλων διπλασίων· ἢ δὲ διὰ τεσσάρων ἐν ἐπιτρίτοις
τοῖς τέσσαρσι καὶ τρισί· πρῶτος γὰρ ἐπίτριτος καὶ
πυθμὴν ὁ δ’ τῶν γ’. ὁ δὲ διὰ πέντε ἐν τρισὶ καὶ δύο·
πρῶτος γὰρ ἡμιόλιος καὶ πυθμὴν ὁ γ’ τοῦ β’¹—τού-
τους οὖν τοὺς ἀριθμοὺς ἀποδόντες ταῖς συμφωνίαις
ἐσκόπουν καθ’ ἕκαστον λόγον—τῶν τοὺς ὄρους περι-

¹ ὁ δὲ . . . τοῦ β’ om. G

D25 (\neq DK) Theophrastus in Porphyry, *Commentary on Ptolemy's Harmonics*

The Pythagoreans called the concord of the fourth (*diatessarôn*) '**syllabê**' [literally: 'holding together'], the concord of the fifth (*diapente*) '**di oxean**' [literally: 'by the high-pitched'], and they made the concord of the octave (*diapasôn*) the harmony (*harmonia*) of the whole, as Theophrastus too says [cf. **PHILOL. D14**].

D26 (> 47 A17) Porphyry, *Commentary on Ptolemy's Harmonics*

Certain Pythagoreans, as Archytas and Didymus report, after having established the ratios of the concords, compared them with one another and, wishing to indicate those that were more concordant, they proceeded as follows. Of the numbers that produce the ratios of the concords, they took the first ones, which they called '**foundations**' (*pythmenes*), that is, the smallest numbers productive of the concord; for example, the numbers 2 and 1 are the first ones in which the octave (*diapasôn*) is observed, since 2 of 1 is the first double and is the foundation of the other doubles; the epitritic 4 and 3 [scil. are the first ones in which] the fourth (*diatessarôn*) [scil. is observed], since 4 of 3 is the first epitritic and is the foundation [scil. of the other epitritics]; and 3 and 2 [scil. are the first ones in which] the fifth (*diapente*) [scil. is observed], since 3 of 2 is the first hemiolic and is the foundation [scil. of the other hemiolics]. Then, having assigned these numbers to the concords, they examined for each ratio of the numbers

εχόντων ἀριθμῶν ἀφελόντες ἀφ' ἐκατέρων τῶν ὄρων ἀνὰ μονάδα—τοὺς ἀπολειπομένους ἀριθμοὺς μετὰ τὴν ἀφαίρεσιν, οἷτινες εἶεν, οἷον τῶν β' <καὶ>² α', οἵπερ ἦσαν τῆς διὰ πασῶν, ἀφελόντες ἀνὰ μονάδα ἐσκόπουν τὸ καταλειπόμενον· ἦν δ' ἔν τῶν δὲ δ' καὶ γ', οἷτινες ἦσαν τῆς διὰ τεσσάρων, ἀφελόντες ἀνὰ μονάδα εἶχον ἐκ μὲν οὖν τῶν τεσσάρων ὑπολειπόμενον τὸν τρία, ἐκ δὲ τῶν τριῶν τὸν δύο· ὥστ' ἀπὸ συναμφοτέρων τῶν ὄρων μετὰ τὴν ἀφαίρεσιν τὸ ὑπολειπόμενον ἦν πέντε. τῶν δὲ γ' καὶ β', οἷτινες ἦσαν τῆς διὰ πέντε, ἀφελόντες ἀνὰ μονάδα εἶχον ἐκ μὲν τῶν τριῶν ὑπολειπόμενα δύο, ἐκ δὲ τῶν δύο ὑπολειπόμενον ἔν, ὥστε τὸ συναμφότερον λειπόμενον³ εἶναι τρία. ἐκάλουν δὲ τὰς μὲν ἀφαιρουμένας μονάδας 'ὁμοια,' τὰ δὲ λειπόμενα μετὰ τὴν ἀφαίρεσιν 'ἀνόμοια,' διὰ δύο αἰτίας, ὅτι ἐξ ἀμφοῖν τῶν ὄρων ὁμοία ἢ ἀφαίρεσις ἐγένετο καὶ ἴση· ἴση γὰρ ἢ μονὰς τῇ μονάδι· ὧν ἀφαιρουμένων ἐξ ἀνάγκης τὰ ὑπολειπόμενα ἀνόμοια καὶ ἄνισα. ἐὰν γὰρ ἀπ' ἀνίσων ἴσα ἀφαιρεθῇ, τὰ λοιπὰ ἔσται ἄνισα. οἱ δὲ πολλαπλάσιοι λόγοι καὶ ἐπιμόριοι, ἐν οἷς θεωροῦνται αἱ συμφωνίαι, ἐν ἀνίσοις ὅροις ὑφεστήκασιν, ἀφ' ὧν ἴσων ἀφαιρουμένων τὰ λοιπὰ πάντως ἄνισα. γίνεται οὖν τὰ ἀνόμοια τῶν συμφωνιῶν 'συμμιγέντα'· 'συμμίσγειν' δὲ λέγουσιν οἱ Πυθαγόρειοι τὸ ἔνα ἐξ ἀμφοτέρων ἀριθμὸν λαβεῖν. ἔσται οὖν τὰ ἀνόμοια συντεθέντα καθ' ἐκάστην τῶν συμφωνιῶν τοιαῦτα· τῆς μὲν διὰ πασῶν ἔν, τῆς δὲ διὰ τεσσάρων πέντε, τῆς δὲ διὰ πέντε τρία. ἐφ' ὧν δ' ἄν

comprising (?) the two terms, having subtracted a unit from each term, the numbers remaining after the subtraction. For example, having subtracted 1 from 2 <and> 1, which are the numbers of the octave, they examined the remainder, which is 1; having subtracted 1 from 4 and 3, which are those of the fourth, they obtained 3 as the remainder of 4 and 2 as the remainder of 3, so that the remainder of the sum of the two terms after subtraction was 5; and having subtracted 1 from 3 and 2, which are those of the fifth, they obtained 2 as the remainder of 3 and 1 as the remainder of 2, so that the combined remainder was 3. And they called the units that were subtracted **'similar'** and the remainders resulting from the subtraction **'dissimilar'**, for two reasons, since the subtraction from both terms was similar and equal (for one unit is equal to another unit), and if these are subtracted, then of necessity the remainders are dissimilar and unequal; for if equals are subtracted from unequals, the remainders will be unequal. But multiple ratios and epimoric ratios, which are the ones in which the concords are observed, are composed of unequal terms, and if equal ones are subtracted from them, the remainders are always unequal. Therefore, among the concords, the dissimilars are produced when there is a **'mixture.'** **'Performing a mixture'** is the term the Pythagoreans use for deriving one number from two. The dissimilars constructed for each of the concords are the following: for the octave, 1; for the fourth, 5; for the fifth, 3. And they say that those concords whose dis-

² <καὶ> Diels
 μενον ἦν Diels

³ ὥστε συναμφοτέρων <τὸ ὑπὸ>λειπό-

φασι τὰ ἀνόμοια ἐλάσσονα ἤ, ἐκείνα τῶν ἄλλων εἰσὶ
 συμφωνότερα. σύμφωνον μὲν ἐστὶν ἡ διὰ πασῶν, ὅτι
 ταύτης τὰ ἀνόμοια ἔν' μεθ' ἣν ἡ διὰ πέντε, ὅτι ταύτης
 τὰ ἀνόμοια τρία· τελευταία δ' ἡ διὰ τεσσάρων, ὅτι
 ταύτης τὰ ἀνόμοια πέντε.

Cosmology (D27–D46)

*The Formation of the World from the
 Originary One (D27–D30)*

D27 (< 58B.9) Arist. *Metaph.* M6 1080b17–20

[. . .] ἐκ τούτου τὰς αἰσθητὰς οὐσίας συνεστάναι
 φασίν· τὸν γὰρ ὅλον οὐρανὸν κατασκευάζουσιν ἐξ
 ἀριθμῶν, πλὴν οὐ μοναδικῶν, ἀλλὰ τὰς μονάδας ὑπο-
 λαμβάνουσιν ἔχειν μέγεθος.

D28 (< 58B.26) Arist. *Metaph.* N3 1091a13–18

οἱ μὲν οὖν Πυθαγόρειοι πότερον οὐ ποιοῦσιν ἢ ποι-
 οῦσι γένεσιν οὐδὲν δεῖ διστάζειν· φανερώς γὰρ λέ-
 γουσιν ὡς τοῦ ἐνὸς συσταθέντος, εἴτ' ἐξ ἐπιπέδων εἴτ'
 ἐκ χοροῦ εἴτ' ἐκ σπέρματος εἴτ' ἐξ ὧν ἀποροῦσιν
 εἰπεῖν, εὐθύς τὸ ἔγγιστα τοῦ ἀπείρου ὅτι εἴλκετο καὶ
 ἐπεραίνετο ὑπὸ τοῦ πέρατος.

D29 (58B.30) Arist. *Phys.* 4.6 213b22–27

εἶναι δ' ἔφασαν καὶ οἱ Πυθαγόρειοι κενόν, καὶ ἐπεισι-

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similars are smaller are more concordant than the others. The octave is concordant because its dissimilars are 1; then comes the fifth, because its dissimilars are 3; and last of all comes the fourth, because its dissimilars are 5.

Cosmology (D27–D46) *The Formation of the World from the* *Originary One (D27–D30)*

D27 (< 58B.9) Aristotle, *Metaphysics*

[. . .] it is from this [i.e. the One], they say, that the perceptible substances are constituted. For they construct the whole heavens out of numbers, except that these are not monadic, but they suppose that the monads have a magnitude.

D28 (< 58B.26) Aristotle, *Metaphysics*

There can be no disagreement about whether the Pythagoreans do or do not accept a generation. For they say clearly that once the One had been formed, whether out of planes, out of a surface (*khroia*), out of a seed, or out of something that they have difficulty in naming, the nearest part of the unlimited was immediately breathed in and limited by the limit.

D29 (58B.30) Aristotle, *Physics*

The Pythagoreans also said that there is a void, and that it

εἶναι αὐτὸ τῷ οὐρανῷ ἐκ τοῦ ἀπείρου πνεύματος¹ ὡς ἀναπνέοντι καὶ τὸ κενόν, ὃ διορίζει τὰς φύσεις, ὡς ὄντος τοῦ κενοῦ χωρισμοῦ τινὸς τῶν ἐφεξῆς καὶ² διορίσεως· καὶ τοῦτ' εἶναι πρῶτον ἐν τοῖς ἀριθμοῖς· τὸ γὰρ κενὸν διορίζειν τὴν φύσιν αὐτῶν.

¹ πνεύματος E²Λ: πνεῦμα Tennemann: πνεῦμά τε fort. E, Diels ² post καὶ hab. mss. τῆς, secl. Bonitz

D30 (58B.30) Aët. 1.18.6 (Stob.) (= Arist. Frag. 201 Rose) [περὶ κενοῦ]

ἐν δὲ τῷ Περὶ τῆς Πυθαγόρου φιλοσοφίας πρώτῳ γράφει, τὸν μὲν¹ οὐρανὸν εἶναι ἓνα, ἐπεισάγεσθαι δὲ ἐκ τοῦ ἀπείρου χρόνον τε καὶ πνοὴν καὶ τὸ κενόν, ὃ διορίζει ἐκάστων τὰς χώρας αἰεί.

¹ τὸν μὲν Heeren: τὸ δὲ mss.

Right and Left (D31–D33)

D31 (58B.30) Arist. *Cael.* 2.2 284b6–8

ἐπειδὴ δὲ τινές εἰσιν οἳ φασιν εἶναι τι δεξιὸν καὶ ἀριστερὸν τοῦ οὐρανοῦ, καθάπερ οἱ καλούμενοι Πυθαγόρειοι (ἐκείνων γὰρ οὗτος ὁ λόγος ἐστίν) [. . .].

PYTHAGOREAN DOCTRINES

is introduced into the heavens from the unlimited breath as though it [i.e. the heavens] were inhaling the void too, which produces a distinction in the natures of things, on the idea that the void is some kind of separation between the elements of a series and a distinction. And this happens first of all in numbers. For the void produces a distinction in their nature.

D30 (58B.30) Aristotle in Aëtius

In the first book of his *On the Philosophy of Pythagoras*, he [i.e. Aristotle] writes that the heavens are one, but that into them, coming from the unlimited, were introduced time, breath, and also the void, which always produces a distinction in [or: defines] the places of each thing.

See also **PHILOL. D15, D17**

Right and Left (D31–D33)

D31 (58B.30) Aristotle, *On the Heavens*

Since there are some people who say that there is a right and a left of the heavens, like the people called Pythagoreans (for this assertion is theirs) [. . .].

D32 (< 58B.31) Arist. *Cael.* 2.2 285a10–13

διὸ καὶ τῶν Πυθαγορείων ἄν τις θαυμάσειεν ὅτι δύο
μόνας ταύτας ἀρχὰς ἔλεγον, τὸ δεξιὸν καὶ τὸ ἀρι-
στερόν, τὰς δὲ τέτταρας παρέλιπον οὐθὲν ἥττον κυ-
ρίας οὔσας.

D33 (< 58B.31) Arist. *Cael.* 2.2 285b23–27

καὶ οἱ μὲν ἐκεῖ οἰκοῦντες ἐν τῷ ἄνω εἰσὶν ἡμισφαιρίῳ
καὶ πρὸς τοῖς δεξιοῖς, ἡμεῖς δ' ἐν τῷ κάτω καὶ πρὸς
τοῖς ἀριστεροῖς, ἐναντίως ἢ ὡς οἱ Πυθαγόρειοι λέγου-
σιν· ἐκείνοι γὰρ ἡμᾶς ἄνω ποιοῦσι καὶ ἐν τῷ δεξιῷ
μέρει, τοὺς δ' ἐκεῖ κάτω καὶ ἐν τῷ ἀριστερῷ.

Time and Eternal Return (D34–D35)

D34 (58B.33) Arist. *Phys.* 4.10 218a33–b1

οἱ μὲν γὰρ τὴν τοῦ ὅλου κίνησιν εἶναί φασιν, οἱ δὲ
τὴν σφαῖραν αὐτήν.

D35 (cf. 58B.34) Simpl. *In Phys.*, p. 732.23–24

οὕτω καὶ οἱ Πυθαγόρειοι τὰ αὐτά πως καὶ τῷ ἀριθμῷ
τῷ πάλιν καὶ πάλιν ἔλεγον γίνεσθαι [. . . = **PYTHS.**
R27].

D32 (< 58B.31) Aristotle, *On the Heavens*

And this is why one might well be astonished at the Pythagoreans, that they posited only these two principles, the right and the left, and neglected the other four [i.e. up, down, in front, behind], which are not less decisive.

D33 (< 58B.31) Aristotle, *On the Heavens*

Those who live there [scil. at the invisible pole] are located in the upper hemisphere and on the right, while we are in the lower one and on the left, contrary to what the Pythagoreans say: for they place us up high and on the right, and those who live there down below and on the left.

Time and Eternal Return (D34–D35)

D34 (58B.33) Aristotle, *Physics*

For some say that it [i.e. time] is the movement of the whole, others the sphere itself.¹

¹ This last position is attributed to Pythagoras himself by Aëtius 1.21.1.

D35 (cf. 58B.34) Eudemus in Simplicius, *Commentary on Aristotle's Physics*

Thus the Pythagoreans said that things are also numerically identical because they happen over and over again [. . .].

EARLY GREEK PHILOSOPHY IV

Astronomy (D36–D46)

The Astronomical System (D36–D41)

D36 (< 58B.37) Arist. *Cael.* 2.13 293a20–24 et b1–4

ἐναντίως οἱ περὶ τὴν Ἰταλίαν, καλούμενοι δὲ Πυθαγόρειοι λέγουσιν· ἐπὶ μὲν γὰρ τοῦ μέσου πῦρ εἶναί φασι, τὴν δὲ γῆν, ἐν τῶν ἄστρον οὖσαν, κύκλῳ φερομένην περὶ τὸ μέσον νύκτα τε καὶ ἡμέραν ποιεῖν. ἔτι δ' ἐναντίαν ἄλλην ταύτη κατασκευάζουσι γῆν, ἣν 'ἀντίχθονα' ὄνομα¹ καλοῦσιν [. . . = **PYTHS. R16**]. ἔτι δ' οἳ γε Πυθαγόρειοι καὶ² διὰ τὸ μάλιστα προσήκειν φυλάττεσθαι τὸ κυριώτατον τοῦ παντός, τὸ δὲ μέσον εἶναι τοιοῦτον,³ 'Διὸς φυλακὴν' ὀνομάζουσι τὸ ταύτην ἔχον τὴν χώραν πῦρ⁴ [. . . = **PYTHS. R24**].

¹ ὄνομα E: om. JHE² ² καὶ] om. E ³ post τοιοῦτον hab. mss. ὁ, secl. Allan ⁴ πῦρ EH: om. J

D37 (≠ DK) Schol. (*Laur.* 87.20) ad Arist. *Cael.* 293b20; cf. 293a24 (p. 239 Rashed)

αἰνιγματωδῶς οἱ Πυθαγόρειοι 'γῆν' ἐκάλουν καὶ τὴν ἀπλανῆ ὡς παντοίων ζώων θείων μεστήν· ἐκάλουν δὲ 'γῆν' καὶ τὴν σελήνην καὶ <τὴν>¹ ἀντίχθονα [. . .].

¹ <τὴν> prop. Rashed

PYTHAGOREAN DOCTRINES

Astronomy (D36–D46)

The Astronomical System (D36–D41)

D36 (< 58B.37) Aristotle, *On the Heavens*

The people in Italy who are called Pythagoreans say the contrary [scil. to those who say that the earth rests in the middle]. For they say that it is fire that is in the middle, while the earth, which is one of the heavenly bodies, produces night and day by moving in a circle around the middle. Moreover, they posit another earth opposite to this one, which they call by the name ‘**counter-earth**’ [. . .]. Moreover, the Pythagoreans, because it is most imperative of all to preserve what in the whole is the most important thing of all—and the middle is like that—call the fire that occupies this place ‘**Zeus’ guardian**’ [. . .].

D37 (≠ DK) Scholia to Aristotle’s *On the Heavens*

The Pythagoreans enigmatically called the fixed [scil. sphere] too ‘**earth,**’ as it is full of divine animate beings of all kinds; they also called the moon and <the> counter-earth ‘**earth.**’

D38 (58B.35) Alex. *In Metaph.*, p. 75.15–17 (= Arist. Frag. 202 Rose)

τῆς δὲ τάξεως τῆς ἐν τῷ οὐρανῷ, ἣν ἐποιοῦντο τῶν ἀριθμῶν οἱ Πυθαγόρειοι, μνημονεύει ἐν τῷ δευτέρῳ περὶ τῆς Πυθαγορικῶν δόξης.

D39 (< 12 A19) Simpl. *In Cael.*, p. 471.5–6 (< Eudem. Frag. 146 Wehrli)

[. . .] τὴν τῆς θέσεως τάξιν εἰς τοὺς Πυθαγορείους πρώτους ἀναφέρων [cf. **ANAXIMAND. R17**].

D40 Alex. *In Metaph.*

a (cf. 44 A16) pp. 38.20–39.3

καὶ τὸν ἥλιον δέ, ἐπεὶ αὐτὸς αἴτιος εἶναι τῶν καιρῶν,¹ φησί,² δοκεῖ, ἐνταῦθά φασιν ἰδρῦσθαι καθ' ὃ ὁ ἔβδομος ἀριθμὸς ἐστίν, ὃν 'καιρὸν' λέγουσιν· ἐβδόμην γὰρ αὐτὸν τάξιν ἔχειν τῶν περὶ τὸ μέσον καὶ τὴν ἐστίαν κινουμένων δέκα σωμάτων· κινεῖσθαι γὰρ μετὰ τὴν τῶν ἀπλανῶν σφαῖραν καὶ τὰς πέντε τὰς τῶν πλανήτων μεθ' ὃν ὀγδόην τὴν σελήνην, καὶ τὴν γῆν ἐννάτην, μεθ' ἣν τὴν ἀντίχθονα [. . .].

¹ καιρῶν Asclep. *In Metaph.* p. 36.11: καρπῶν mss.

² φύσει Bonitz

D38 (58B.35) Alexander of Aphrodisias, *Commentary on Aristotle's Metaphysics*

He [i.e. Aristotle] mentions in the second book of his *On the Opinion of the Pythagoreans* the order in the heavens that the Pythagoreans attribute to the numbers.

D39 (< 12 A19) Simplicius, *Commentary on Aristotle's On the Heavens*

[. . .] while he [i.e. Eudemus] attributes to the Pythagoreans to have been the first to have indicated the order in which they [i.e. the planets] are arranged.

D40 Aristotle in Alexander of Aphrodisias, *Commentary on Aristotle's Metaphysics*

a (cf. 44 A16)

And since, he [i.e. Aristotle] says, the sun itself seems to be the cause of the seasons (*kairoi*), they [i.e. the Pythagoreans] say that it is located where the seventh number, which they call '**the right moment**' (*kairos*), is located. For it occupies the seventh position of the ten bodies that move around the middle and the hearth. For its movement is located after the sphere of the fixed stars and the five spheres of the planets. After it comes in the eighth position the moon, and the earth in the ninth, and after this the counter-earth [. . .].

b (> 58B.4) pp. 40.27–41.2

αὐτίκα γοῦν τέλειον ἀριθμὸν ἡγούμενοι τὴν δεκάδα, ὁρῶντες δὲ ἐν τοῖς φαινομένοις ἐννέα τὰς κινουμένας σφαίρας, ἑπτὰ μὲν τὰς τῶν πλανωμένων, ὀγδόην δὲ τὴν τῶν ἀπλανῶν, ἐννάτην δὲ τὴν γῆν (καὶ γὰρ καὶ ταύτην ἡγοῦντο κινεῖσθαι κύκλῳ περὶ μένουσαν τὴν ἐστίαν, ὃ πῦρ ἐστὶ κατ' αὐτούς), αὐτοὶ προσέθεσαν ἐν τοῖς δόγμασι καὶ τὴν ἀντίχθονά τινα, ἣν ἀντικινεῖσθαι ὑπέθεντο τῇ γῇ καὶ διὰ τοῦτο τοῖς ἐπὶ τῆς γῆς ἀόρατον εἶναι. λέγει δὲ περὶ τούτων καὶ ἐν τοῖς Περὶ οὐρανοῦ [293a23, b20] καὶ ἐν ταῖς τῶν Πυθαγορικῶν δόξαις ἀκριβέστερον [= Frag. 203 Rose].

D41 (cf. ad 58B.22, 36) Alex. *In Metaph.*, pp. 74.6–75.2

ἔλεγον γὰρ ἐν τινὶ μὲν μέρει τοῦ κόσμου δόξαν συνίστασθαι, ἐν ἄλλῳ δὲ καιρόν, πάλιν δ' αὖ ἐν ἄλλῳ ἢ κάτωθεν τούτων ἢ ἄνωθεν ἢ ἀδικίαν¹ ἢ κρίσιν ἢ μίξιν ἢ ἄλλο τι τῶν ἐν τῷ οὐρανῷ. τῆς δὲ τούτων κατὰ τὴν τάξιν τὴν τοιαύτην συστάσεως ἀπόδειξιν ἔφερον ὅτι τούτων μὲν ἕκαστον τοῦ ἀριθμοῦ ἐστίν, ἕκαστῳ δὲ τόπῳ ἐν τῷ κόσμῳ οἰκεῖός τις ἐστὶν ἀριθμός. τῷ μὲν γὰρ μέσῳ τὸ ἓν (πρῶτον γάρ ἐστιν ἐνταῦθα), μετὰ δὲ τὸ μέσον τὰ δύο, ἃ δόξαν τε ἔλεγον καὶ τόλμαν· καὶ οὕτως αἰεὶ ἀφισταμένων ἀπὸ τοῦ μέσου πλείονα τὸν ἀριθμὸν γίγνεσθαι τῶν συνισταμένων διὰ τὸ καὶ τοὺς

¹ ἀνικίαν Asclep. *In Metaph.* p. 68.19

b (> 58B.4)

Thinking at first that the decad was the perfect number, but seeing in the phenomena that the moving spheres were nine, seven those of the planets, the eighth that of the fixed stars, and the ninth the earth (for they thought that this too moves in a circle around the motionless hearth, which according to them is fire), they added in their doctrines a counter-earth, of which they supposed that it moved opposite to the earth and for this reason was invisible to the people who live on the earth. He [i.e. Aristotle] speaks about these matters in greater detail in his *On the Heavens* and in his *The Doctrines of the Pythagoreans*.

D41 (cf. ad 58B.22, 36) Alexander of Aphrodisias, *Commentary on Aristotle's Metaphysics*

For they said that opinion is constituted in a certain part of the world, in another one the right moment, in another one, below or above these, injustice or judgment or mixture or one of the other things that exist in the world. And they brought as proof of the formation of these things according to this order the claim that each of them belongs to a number and that there is an appropriate number for each place in the world. For in the middle there is the one (for what is first is located there), after the middle comes the two, which they said were opinion and audacity; and in this way, moving further and further away from the middle, the things that are constituted come to be ever more in number, because the numbers out of which they

ἀριθμούς ἐξ ὧν συνίστανται, μᾶλλον δὲ οἷς ἔστι ταυτά,² τοιούτους εἶναι τὰ γὰρ τῶν ἀριθμῶν πάθη καὶ τοὺς ἀριθμούς τοῖς τόποις ἀκολουθεῖν τοῖς ἐν τῷ οὐρανῷ καὶ οἰκείους αὐτοῖς εἶναι διὸ καὶ τὰ μεγέθη ἐκ τούτων ἐπισυμβαίνειν.

² ταῦτα mss., corr. Dooley

Astronomical Phenomena (D42–D46)

Disappearance of the Moon (D42)

D42 (58B.36) Aët. 2.29.4 (Stob., cf. Ps.-Plut.) [περὶ ἐκλείψεως σελήνης]

τῶν Πυθαγορείων τινὲς κατὰ τὴν Ἀριστοτέλειον ἱστορίαν [≠ Rose, Frag. 16 Ross, cf. *Cael.* 293a18–b2] καὶ τὴν Φιλίππου τοῦ Ὀπουντίου ἀπόφασιν ἀντιφράζει τοτὲ μὲν τῆς γῆς, τοτὲ δὲ τῆς ἀντίχθονος. τῶν δὲ νεωτέρων¹ εἰσὶ τινες οἷς ἔδοξε κατ' ἐπινέμησιν φλογὸς κατὰ μικρὸν ἐξαπτομένης τεταγμένως, ἕως ἂν² τὴν τελείαν πανσέληνον ἀποδῶ, καὶ πάλιν ἀναλόγως μειουμένης μέχρι τῆς συνόδου καθ' ἣν τελείως σβέννυται.

¹ μεθ' ἐτέρων ms., corr. Canter

² ἂν Plut.: om. Stob.

Comets (D43)

D43 (< 42.5) Arist. *Meteor.* 1.6 342b29–33

τῶν δ' Ἰταλικῶν τινες καλουμένων Πυθαγορείων ἓνα

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are constituted, or rather with which they are identical, are like this too. For the attributes of numbers and the numbers follow the locations in the heavens and are appropriate for them. And that is why magnitudes are produced out of these later.

Astronomical Phenomena (D42–D46) *Disappearance of the Moon (D42)*

D42 (58B.36) Aëtius

Some of the Pythagoreans, according to the report of Aristotle and the statement of Philip of Opus: [scil. the eclipse of the moon is caused] by the interposition sometimes of the earth, sometimes of the counter-earth. But among the more recent ones, there are some who thought that it was caused by the spreading outward of a flame which burns little by little in a regular manner until it produces the full moon, and analogously diminishes in turn until the conjunction [scil. with the sun], when it is completely extinguished.

Comets (D43)

D43 (< 42.5) Aristotle, *Meteorology*

Some of the Italians who are called Pythagoreans say that

λέγουσιν αὐτὸν εἶναι τῶν πλανήτων ἀστέρων, ἀλλὰ διὰ πολλοῦ τε χρόνου τὴν φαντασίαν αὐτοῦ εἶναι καὶ τὴν ὑπερβολὴν ἐπὶ μικρόν, ὅπερ συμβαίνει καὶ περὶ τὸν τοῦ Ἑρμοῦ ἀστέρα [. . .].

The Milky Way (D44–D45)

D44 (41.10) Arist. *Meteor.* 1.8 345a13–18

τῶν μὲν οὖν καλουμένων Πυθαγορείων φασὶ τινες ὁδὸν εἶναι ταύτην οἱ μὲν τῶν ἐκπεσόντων τινὸς ἀστέρων κατὰ τὴν λεγομένην ἐπὶ Φαέθοντος φθοράν, οἱ δὲ τὸν ἥλιον τοῦτον τὸν κύκλον φέρεσθαι ποτέ φασιν· οἷον οὖν διακεκαῦσθαι τὸν τόπον τοῦτον ἢ τι τοιοῦτον ἄλλο πεπονθέναι πάθος ὑπὸ τῆς φορᾶς αὐτῶν.

D45 (58B.37c) Aët. 3.1.2 (Ps.-Plut.) [περὶ τοῦ γαλαξίου κύκλου]

τῶν Πυθαγορείων οἱ μὲν ἔφασαν ἀστέρος εἶναι διακαυσιν, ἐκπεσόντος μὲν ἀπὸ τῆς ἰδίας¹ ἑδρας, δι' οὗ δὲ ἐπέδραμε² χωρίου κυκλοτερῶς αὐτὸ καταφλέξαντος ἐπὶ τοῦ κατὰ Φαέθοντα ἐμπρησμοῦ· οἱ δὲ τὸν ἡλιακὸν ταύτῃ φασὶ κατ' ἀρχὰς γεγονέναι δρόμον. τινὲς δὲ κατοπτρικὴν εἶναι φαντασίαν τοῦ ἡλίου τὰς αὐγὰς πρὸς τὸν οὐρανὸν ἀνακλῶντος, ὅπερ καὶ ἐπὶ τῆς Ἰριδος καὶ ἐπὶ τῶν νεφῶν συμβαίνει.

¹ ἰδίας ΜΠ: οἰκείας m

² ἐπέδραμε Μm: περι- E

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it [i.e. a comet] is one of the wandering heavenly bodies [i.e. planets] but that it only makes an appearance at great intervals and at a low altitude, which is the case with Mercury too [. . .].

The Milky Way (D44–D45)

D44 (41.10) Aristotle, *Meteorology*

Some of the people who are called Pythagoreans say that it [i.e. the Milky Way] is a path; some say it is that of one of the heavenly bodies that fell at the destruction said to have occurred at the time of Phaethon, while the others say that the sun formerly moved along this circle, and so this region was burned as it were or was affected in some other way because of their passage.

D45 (58B.37c) Aëtius

Among the Pythagoreans, some said that it [i.e. the Milky Way] was the combustion of a heavenly body which fell from its place during the conflagration caused by Phaethon and set on fire the area through which it moved in a circle; others say that it was here that in the beginning the sun had its course; and some say that it is a mirror image of the sun whose rays are reflected on the heavens, which also happens in the case of the rainbow and clouds.

*The Harmony of the Spheres (D46)***D46** (58B.35) Arist. *Cael.* 2.9 290b12–29

φανερὸν δ' ἐκ τούτων ὅτι καὶ τὸ φάναι γίνεσθαι
 φερομένων ἀρμονίαν, ὥς συμφώνων γινομένων τῶν
 ψόφων, κομψῶς μὲν εἴρηται καὶ περιττῶς ὑπὸ τῶν
 εἰπόντων, οὐ μὴν οὕτως ἔχει τάληθές. δοκεῖ γάρ τισιν
 ἀναγκαῖον εἶναι τηλικούτων φερομένων σωμάτων γί-
 γνεσθαι ψόφον, ἐπεὶ καὶ τῶν παρ' ἡμῖν οὔτε τοὺς
 ὄγκους ἔχόντων ἴσους οὔτε τοιούτῳ τάχει φερομένων
 ἡλίου δέ¹ καὶ σελήνης, ἔτι τε τοσούτων τὸ πλῆθος
 ἄστρον καὶ τὸ μέγεθος φερομένων τῷ² τάχει τοιαύτην
 φορὰν ἀδύνατον μὴ γίγνεσθαι ψόφον ἀμήχανόν τινα
 τὸ μέγεθος. ὑποθέμενοι δὲ ταῦτα καὶ τὰς ταχυτήτας
 ἐκ τῶν ἀποστάσεων ἔχειν τοὺς τῶν συμφωνιῶν λό-
 γους, ἐναρμόνιον γίγνεσθαι φασι τὴν φωνὴν φερο-
 μένων κύκλῳ τῶν ἄστρον. ἐπεὶ δ' ἄλογον δοκεῖ τὸ μὴ
 συνακούειν ἡμᾶς τῆς φωνῆς ταύτης, αἷτιον τούτου
 φασὶν εἶναι τὸ γιγνομένων εὐθὺς ὑπάρχειν τὸν ψό-
 φον, ὥστε μὴ διάδηλον εἶναι πρὸς τὴν ἐναντίαν σι-
 γήν· πρὸς ἄλληλα γὰρ φωνῆς καὶ σιγῆς εἶναι τὴν
 διάγνωσιν· ὥστε καθάπερ τοῖς χαλκοτύποις διὰ συν-
 ἡθείαν οὐθὲν δοκεῖ διαφέρειν, καὶ τοῖς ἀνθρώποις
 ταὐτὸ συμβαίνειν [. . . = **PYTHS. R25**].

¹ τε mss., corr. Bekker² τῷ] τοιούτῳ conl. Moraux

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The Harmony of the Spheres (D46)

D46 (58B.35) Aristotle, *On the Heavens*

This shows clearly that the statement that the movement [scil. of the heavenly bodies] produces a harmony, on the idea that the sounds emitted form a chord, has been made by its proponents in a subtle and refined manner, but that nonetheless it is not true. For some people think that it is necessary that the movement of such large bodies produce a sound, since this is also the case of bodies among us too, which have a smaller mass and move with less rapidity. And since the sun and moon, and furthermore such a great number of heavenly bodies of such a large size, are moving with rapidity along such a course, it would be impossible that there not be produced a sound of an immense magnitude. Taking this as a hypothesis, and supposing that their speeds, on the basis of their distances, had the proportions of concords, they said that the sound emitted by the heavenly bodies moving in a circle was harmonious. And since it seemed inexplicable that we do not hear this sound, they said that the reason for this was that the sound exists beginning with the moment of our birth, so that it never becomes noticeable by a contrast with silence; for sound and silence are distinguished by their relation to one another, so that just as for coppersmiths it [i.e. the noise in their workshop] seems to make no difference because of their habituation, so too the same thing happens for humans [. . .].

EARLY GREEK PHILOSOPHY IV

Optics (D47–D48) *Mirror Images (D47)*

D47 (\neq DK) Aët. 4.14.3 (Ps.-Plut.) [*περὶ κατοπτρικῶν ἐμφάσεων*]

οἱ ἀπὸ Πυθαγόρου κατ' ἀνάκλασεις τῆς ὀψεως. φέρεσθαι μὲν γὰρ τὴν ὄψιν τεταμένην ὡς ἐπὶ τὸν χαλκόν, ἐντυχοῦσαν δὲ πυκνῷ καὶ λείῳ πληχθεῖσαν ὑποστρέφειν αὐτὴν ἐφ' ἑαυτήν, ὅμοιον τι πάσχουσιν τῇ ἐκτάσει τῆς χειρὸς καὶ τῇ ἐπὶ τὸν ὦμον ἀντεπιστροφῇ.

Color (D48)

D48 (58B.42) Arist. *Sens.* 3 439a30–31

τὸ γὰρ χρῶμα ἢ ἐν τῷ πέρατί ἐστιν ἢ πέρας (διὸ καὶ οἱ Πυθαγόρειοι τὴν ἐπιφάνειαν 'χρῶαν' ἐκάλουν).

Life (D49–D53) *The Soul (D49–D52)*

D49 ($<$ 58B.40) Arist. *An.* 1.2 404a16–20

[. . .] ἔφασαν γάρ τινες αὐτῶν ψυχὴν εἶναι τὰ ἐν τῷ ἀέρι ξύσματα, οἱ δὲ τὰ ταῦτα κινοῦν, περὶ δὲ τούτων εἴρηται ὅτι συνεχῶς φαίνεται κινούμενα, καὶ ἢ νηνεμία παντελής.

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Optics (D47–D48) *Mirror Images (D47)*

D47 (\neq DK) Aëtius

The followers of Pythagoras: [scil. the images in mirrors are produced] by reflection of the visual ray. For when the visual ray is tensed and directed toward the bronze, and it encounters a compact and smooth object, it undergoes a striking and turns back toward itself, undergoing something similar to the extension of a hand and its return to the shoulder [cf. **ARCHY. D22**].

Color (D48)

D48 (58B.42) Aristotle, *On Sensation*

For color (*chrôma*) is either at the limit or is a limit. And it is for this reason that the Pythagoreans called the surface ‘**complexion**’ (*khroa*).

Life (D49–D53) *The Soul (D49–D52)*

D49 (< 58B.40) Aristotle, *On the Soul*

[...] For some of them [scil. of the Pythagoreans] said that the soul is motes (*xusmata*) in the air, others that it is what moves these. People say about these that they are seen to be in constant motion, even if there is a total lack of a breeze.

D50 (44 A23) Arist. *An.* 1.4 407b27–32

καὶ ἄλλη δέ τις δόξα παραδέδοται περὶ ψυχῆς [. . .].
 ἁρμονίαν γάρ τινα αὐτὴν λέγουσι καὶ γὰρ τὴν ἁρ-
 μονίαν κρᾶσιν καὶ σύνθεσιν ἐναντίων εἶναι, καὶ τὸ
 σῶμα συγκείσθαι ἐξ ἐναντίων.

D51 (58B.41) Arist. *Pol.* 8.5 1340b18

διὸ πολλοὶ φασὶ τῶν σοφῶν οἱ μὲν ἁρμονίαν εἶναι
 τὴν ψυχὴν, οἱ δ' ἔχειν ἁρμονίαν.

D52 (< 58B.39) Arist. *An.* 1.3 407b21–23

[. . .] ὥσπερ ἐνδεχόμενον κατὰ τοὺς Πυθαγορικοὺς
 μύθους τὴν τυχοῦσαν ψυχὴν εἰς τὸ τυχὸν ἐνδύεσθαι
 σῶμα.

Zoological Particularities (D53)

D53 (< 58B.43) Arist. *Sens.* 5 445a16–17

[. . .] τρέφεσθαι γάρ φασιν ἔνια ζῶα ταῖς ὀσμάϊς.

Moral Precepts Reported by Aristoxenus (D54)

D54 Aristox. in Stob. [ἐκ τῶν Ἀριστοξένου Πυθαγο-
 ρικῶν ἀποφάσεων]

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D50 (44 A23) Aristotle, *On the Soul*

Another opinion is transmitted about the soul [. . .]. For they [i.e. its proponents] say that it is a kind of harmony. For harmony is a mixture and conjunction of contraries, and the body is composed out of contraries.

D51 (58B.41) Aristotle, *Politics*

That is why many sages say, some that the soul is a harmony, others that it possesses a harmony.

D52 (< 58B.39) Aristotle, *On the Soul*

[. . .] as though it were possible, in conformity with the Pythagorean myths, for any given soul to enter into any given body.

Zoological Particularities (D53)

D53 (< 58B.43) Aristotle, *On Sensation*

[. . .] They [i.e. some of the Pythagoreans] say [. . .] that some animals are nourished by odors.

Moral Precepts Reported by Aristoxenus (D54)

D54 Aristoxenus, *Pythagorean Precepts* in Stobaeus, *Anthology*¹

¹ Iamblichus' *Life of Pythagoras* 137, 163–66, 174–76, 180–83, 196–98, 200–13, 230–33, 233–39 provides a parallel transmission to Stobaeus' excerpts from Aristoxenus' book, but Iamblichus has evidently freely elaborated his source (see 58D.1, 2, 3, 5–9 DK).

a (58D.4) 4.25.45 (Frag. 34 Wehrli)

μετὰ τὸ θεῖον καὶ δαιμόνιον πλείστον ποιεῖσθαι λόγον γονέων τε καὶ νόμων μὴ πλαστῶς ἀλλὰ πεπιστευμένως ἑαυτὸν πρὸς ταῦτα παρασκευάζοντα. τὸ μένειν <έν>¹ τοῖς πατρίοις ἔθεσί τε καὶ νόμοις ἔδοκίμαζον, εἰ καὶ μικρῶ² χείρω τῶν ἑτέρων εἴη.

¹ <έν> Hense

² μακρῶ Wehrli post Deubner

b (58D.4) 4.1.49 (Frag. 35 Wehrli)

καθόλου δὲ ὥντο δεῖν ὑπολαμβάνειν μηδὲν εἶναι μείζον κακὸν ἀναρχίας· οὐ γὰρ πεφυκέναι τὸν ἄνθρωπον διασώζεσθαι μηδενὸς ἐπιστατοῦντος. περὶ δὲ ἀρχόντων καὶ ἀρχομένων οὕτως ἐφρόνουν, τοὺς μὲν γὰρ ἄρχοντας ἔφασκον οὐ μόνον ἐπιστήμονας ἀλλὰ καὶ φιλανθρώπους δεῖν εἶναι, καὶ τοὺς ἀρχομένους οὐ μόνον πειθηρίους ἀλλὰ καὶ φιλάρχοντας. ἐπιμελητέον δὲ πάσης ἡλικίας ἡγούντο, καὶ τοὺς μὲν παῖδας ἐν γράμμασι καὶ τοῖς ἄλλοις μαθήμασι ἀσκεῖσθαι, τοὺς δὲ νεανίσκους τοῖς τῆς πόλεως ἔθεσί τε καὶ νόμοις γυμνάζεσθαι, τοὺς δὲ ἄνδρας ταῖς πράξεσί τε καὶ δημοσίαις λειτουργίαις προσέχειν. τοὺς δὲ πρεσβύτας ἐνθυμήσεσι καὶ κριτηρίοις καὶ συμβουλίαις δεῖν ἐναναστρέφεσθαι μετὰ πάσης ἐπιστήμης ὑπελάμβανον, ὅπως μήτε οἱ παῖδες νηπιάζοιεν, μήτε οἱ νεανίσκοι παιδαριεύοντο, μήτε οἱ ἄνδρες νεανιεύοντο, μήτε οἱ γέροντες παραφρονοῖεν. δεῖν δὲ ἔφασκον εὐθὺς ἐκ παίδων καὶ τὴν τροφὴν τεταγμένως

a (58D.4)

After the divinity and the *daimones*, one must attribute the highest value to one's parents and the laws, preparing oneself with regard to these things without dissimulation, but on the contrary with full conviction. And they thought it right to abide by the ancestral customs and laws, even if these were a little worse than the others.

b (58D.4)

In general they thought that one must suppose that there is no greater evil than lack of rule (*anarkhia*): for by nature a human being cannot preserve himself when there is no one directing him. And this is what they thought about those who rule and those who are ruled: they said that those who rule must not only possess knowledge but must also love human beings; and those who are ruled must not only be obedient but must also love their rulers. And they thought that it belongs to every age to exercise oneself: children practice reading, writing, and the other kinds of knowledge; young men are trained in the customs and laws of the city; adult men devote themselves to the affairs and liturgies of the community. And they thought that old men must occupy themselves with encouragement, rules, and advice using all their knowledge, so that children would not act like babies, nor young people like children, nor would adult men act like adolescents, nor old men like madmen. And they said that already beginning in childhood one must eat one's food in an orderly way: they

προσφέρεσθαι, διδάσκοντες¹ ὥς ἡ μὲν τάξις καὶ συμμετρία καλὰ καὶ σύμφορα, ἡ δ' ἀταξία καὶ ἀσύμμετρία αἰσχροὶ τε καὶ ἀσύμφορα.

¹ διδάσκουσα A, διδάσκουσαν SM: corr. Gesner

c (58D.10) 3.1.101 (Frag. 40 Wehrli)

τὴν ἀληθῆ φιλοκαλίαν ἐν τοῖς ἐπιτηδεύμασι καὶ ἐν ταῖς ἐπιστήμασι ἔλεγεν εἶναι. τὸ γὰρ ἀγαπᾶν καὶ στέργειν τῶν καλῶν ἐθῶν τε καὶ ἐπιτηδευμάτων ὑπάρχειν,¹ ὡσαύτως δὲ καὶ τῶν ἐπιστημῶν τε καὶ ἐμπειριῶν τὰς καλὰς καὶ εὐσχήμονας ἀληθῶς εἶναι φιλοκάλους, τὴν δὲ λεγομένην ὑπὸ τῶν πολλῶν φιλοκαλίαν, οἷον <ἐν>² τοῖς ἀναγκαίοις καὶ χρησίμοις πρὸς τὸν βίον γινομένην, λάφυρά που τῆς ἀληθινῆς κείσθαι φιλοκαλίας.

¹ ὑπάρχει mss., corr. Meineke
Diels

² <ἐν> Hense, <τὴν ἐν>

d (58D.11) 1.6.18 (Frag. 41 Wehrli)

περὶ δὲ τύχης τάδ' ἔφασκον· εἶναι μὲν τι¹ καὶ δαιμόνιον μέρος αὐτῆς, γενέσθαι γὰρ ἐπίπνοιάν τινα παρὰ τοῦ δαιμονίου τῶν ἀνθρώπων ἐνίοις ἐπὶ τὸ βέλτιον ἢ ἐπὶ τὸ χεῖρον, καὶ εἶναι φανερώς κατ' αὐτὸ τοῦτο τοὺς μὲν εὐτυχεῖς, τοὺς δὲ ἀτυχεῖς. καταφανέστατον δὲ εἶναι τοῦτο <τῷ>² τοὺς μὲν ἀπροβουλεύτως καὶ εἰκῇ τι πράττοντας πολλάκις κατατυγχάνειν, τοὺς δὲ προ-

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taught that order and proportion are fine and useful things, while disorder and disproportion are unseemly and harmful ones.

c (58D.10)

He said that the true love of beauty resides in actions and forms of knowledge. For to love and to like belong to fine customs and activities. In the same way, those forms of science and of practical knowledge that are fine and graceful are truly lovers of beauty; but what most people call love of beauty, residing in what is necessary and useful for life, is as it were the spoils of the true love of beauty.

d (58D.11)

About fortune they said the following: One part of it is also divine (*daimonios*). For some people receive a certain inspiration, deriving from the divinity, toward what is better or what is worse, and it is clearly because of this that some people are fortunate and others unfortunate. What makes this most evident is the fact that often those people who act without reflecting beforehand and at random are successful, while those who reflect beforehand and plan

¹ μέντοι mss., corr. Usener

² <τῶ> Usener

βουλευομένους καὶ προνοομένους ὀρθῶς τι πράττειν ἀποτυγχάνειν. εἶναι δὲ καὶ ἕτερον τύχης εἶδος, καθ' ὃ οἱ μὲν εὐφυνεῖς καὶ εὖστοχοι, οἱ δὲ ἀφυνεῖς τε καὶ ἐναντίαν ἔχοντες φύσιν βλάστοιεν,³ ὧν οἱ μὲν εὐθυβολοῖεν⁴ ἐφ' ὃ τι ἂν ἐπιβάλωνται, οἱ δὲ ἀποπίπτοιεν τοῦ σκοποῦ, μηδέποτε τῆς διανοίας αὐτῶν εὐστόχως φερομένης, ἀλλὰ ἀεὶ⁵ ταρασσομένης. ταύτην δὲ τὴν ἀτυχίαν σύμφυτον εἶναι καὶ οὐκ ἐπέισακτον.

³ βλάπτειν mss., corr. Wytttenbach
F, εὐθύβουλοι εἶναι P, corr. Jacobs
Wachsmuth

⁴ εὐθύβουλοι εἶεν
⁵ καὶ mss., corr.

e (58D.5) 2.31.119 (Frag. 36 Wehrli)

ἔφασκον δὲ καὶ τὰς μαθήσεις πάσας τῶν τε ἐπιστημῶν καὶ τῶν τεχνῶν τὰς μὲν ἐκουσίους ὀρθὰς τε εἶναι καὶ εἰς τέλος ἀφικνεῖσθαι, τὰς δὲ ἀκουσίους φαύλους τε καὶ ἀτελεῖς γίνεσθαι.

f (58D.8) 3.10.66 (Frag. 37 Wehrli)

περὶ δὲ ἐπιθυμίας τάδε ἔλεγον¹ εἶναι τὸ πάθος τοῦτο ποικίλον καὶ πολυειδέστατον. εἶναι δὲ τῶν ἐπιθυμιῶν τὰς μὲν ἐπικτήτους τε καὶ παρασκευαστάς, τὰς δὲ συμφύτους. αὐτὴν μέντοι τὴν ἐπιθυμίαν ἐπιφορὰν τινα τῆς ψυχῆς καὶ ὁρμῆν καὶ ὄρεξιν εἶναι πληρώσεως ἢ παρουσίας αἰσθήσεως, ἢ κενώσεως καὶ ἀπουσίας καὶ τοῦ μὴ αἰσθανέσθαι. ἐπιθυμίας δὲ ἡμαρτημένης τε καὶ φαύλης τρία εἶναι εἶδη τὰ γνωριμώτατα,

beforehand to do something correctly are unsuccessful. But there is another kind of chance, because of which some people develop in such a way that they possess a good nature and hit the target, while others have a bad nature and the opposite kind of natural disposition—the ones hitting the mark, whatever they aim at, while the others miss the mark, their plan never reaching its goal but always being disturbed. This kind of misfortune is innate and is not introduced from outside.

e (58D.5)

And they said that all forms of knowledge, and those sciences and arts that are practiced voluntarily, are correct and arrive at their goal, while those that are done against one's will turn out to be inferior and ineffectual.

f (58D.8)

About desire they said the following: This affection (*pathos*) is variegated and has very many species. For some desires are adventitious and are acquired, while others are innate. And as for desire itself, it is a kind of movement, impulse, and drive of the soul for a state of fullness or the presence of a sensation, or for a state of emptiness, an absence and the lack of a sensation. The most familiar kinds of mistaken and inferior desire are three: ungrace-

¹ ἔλεγον M^dA: ἔλεγεν S

ἀσχημοσύνην, ἀσυμμετρίαν, ἀκαιρίαν. ἡ γὰρ αὐτό-
θεν εἶναι τὴν ἐπιθυμίαν ἀσχήμονά τε καὶ φορτικὴν
καὶ ἀνελεύθερον, ἡ τοῦτο μὲν οὐ, σφοδρότερον δὲ καὶ
χρονιώτερον τοῦ προσήκοντος, ἡ τρίτον πρὸς ταῦτα,
ὅτε οὐ δεῖ καὶ πρὸς ἃ οὐ δεῖ.

g (58D.8) 4.37.4 (Frag. 39 Wehrli)

περὶ δὲ γενέσεως παίδων τάδε ἔλεγε· καθόλου μὲν
φυλάττεσθαι τὸ καλούμενον προφερές, οὔτε γὰρ τῶν
φυτῶν οὔτε τῶν ζώων εὐκαρπα τὰ προφερῇ γίγνε-
σθαι, ἀλλὰ χρόνον τινὰ προπαρασκευάζεσθαι τῆς
καρποφορίας, ἐν ᾧ ἐξισχύσαντα καὶ τετελειωμένα τὰ
σώματα παρέχειν τὰ τε σπέρματα καὶ τοὺς καρποὺς
δεδύνηται. πολλὰ δὲ εἶναι ἐν τῷ <βίῳ>,¹ ἐν οἷς ἡ ὀψι-
μαθία ἐστὶ βελτίων, οἷον καὶ τὸ τοῦ ἀφροδισιάζειν
πρᾶγμα. δέον οὖν ἐστὶ² παῖδας οὕτως ἄγεσθαι διὰ
τῶν ἀσκημάτων ἀσχόλους, ὥστε μὴ μόνον μὴ ζητεῖν,
ἀλλ' εἰ δυνατόν μηδὲ εἰδένα³ τὴν τοιαύτην συνουσίαν
ἐντὸς τῶν εἴκοσι ἐτῶν. ὅταν δὲ καὶ εἰς τοῦτο ἀφίκηται,
σπανίοις εἶναι χρηστέον τοῖς ἀφροδισίοις. τοῦτο γὰρ
πρὸς τε τὴν τῶν γεννώντων καὶ γεννησομένων εὐεξίαν
πολύ τι συμβάλλεσθαι. ἔλεγε δὲ καὶ μήτε τροφῆς⁴
μήτε μέθης πλήρη ταῖς γυναιξὶν εἰς τὸ γεννᾶν ὁμι-
λεῖν, οὐ γὰρ οἶεται⁵ ἐκ φαύλης καὶ ἀσυμφώνου καὶ
ταραχώδους κράσεως εὐρυθμα καὶ καλὰ, ἀλλ' οὐδὲ
ἀγαθὰ τὴν ἀρχὴν γίγνεσθαι.⁶

¹ <βίῳ> Koën

² δεῖν οὖν ἔτι Wehrli

fulness, disproportion, and inopportuneness. For either the desire is in itself ungraceful, vulgar, and illiberal, or else it is not this, but it is more intense and lasts longer than what is suitable, or third besides these, it occurs when it should not and with regard to objects that it should not.

g (58D.8)

About the begetting of children he said the following: In general one should avoid what is called 'premature,' for neither in plants nor in animals is what is premature fruitful, but it needs to be prepared before bearing fruit for a certain period of time, during which the bodies are strengthened and matured, and become capable of producing seed and fruits. There are many things in <life> in which it is better to learn late; and this applies to the activity of sexual intercourse as well. Therefore one must make children occupied by exercises when they are busy in such a way that they not only do not seek this kind of sexual activity, but even, if possible, do not even know anything about it before they are twenty years old. And when they reach this age, it is only seldom that they should engage in sexual intercourse. For this contributes greatly to the good health of parents and of those who will be born. He also said that one should not approach women for the sake of reproduction when one is full of food or wine, for he thinks that from an inferior, unharmonious, and disturbed mixture things cannot be produced that are rhythmical and fine, or even good at all.

³ εἶναι mss., corr. Koën
ταῦς mss., corr. Diels

⁴ τρυφή ed. Trincavelli
⁶ γίγνεται mss., corr. Wytténbach

18. PYTHAGORAS, PYTHAGOREANS, PYTHAGOREANISM: RECEPTION [PYTHS. R]

The conditions that make the Pythagorean writings unique in the history of Greek philosophy have to do not only with the particularities of the Pythagorean 'school' and the relations between the tutelary figure of Pythagoras and those people who were able to lay claim to him in the first generations (see the General Introduction to Chapters 10–18), but also and above all with the fact that the guiding principles of ancient Pythagoreanism were entirely absorbed by Platonism: on the theoretical side, number, limit, the unlimited, harmony, as they are found especially in Philolaus; on the practical side, the care for the soul and the rules of life, as these can be grasped in the functioning of the Pythagorean communities and in an abundant corpus of precepts. This absorption already begins to a certain degree in Plato, who pays anonymous but transparent homage to Philolaus in the *Philebus*, chooses a Pythagorean, Timaeus, to expound a cosmology mathematized in its principles by the harmonic structuring of the soul of the world, and uses the transmigration of souls as the foundation for several eschatological narratives; Plato's immediate successors (Speusippus in particular) seem indeed to

have begun a process of directly retrojecting Platonic doctrines onto Pythagoras; but it is among the Neoplatonists, especially beginning with Iamblichus, that this process attains its full culmination. A mythical Pythagoras becomes the ancestor of Plato, adulated for himself and in a certain manner superior to him—closer to the gods, to put it in the terms Plato himself used, but without the irony with which Plato had colored it (cf. **R3**). The portion of authentic information regarding Pythagoras and his Preplatonic disciples gradually diminishes as projection, syncretism, amalgamation, and fantasy increase, providing room for the creation of an abundant pseudepigraphic corpus, which is difficult to date and is doubtless even more interesting for the sociology of philosophy than it is for the doctrines it transmits.

The present chapter illustrates the principal stages and the most important aspects of this unparalleled reception process, which had considerable effects on the history of Platonism itself, notably during the Renaissance: indeed, Pythagoras is one of the constitutive figures of the '*prisca philosophia*,' that primeval philosophy thought to derive from the depths of human wisdom, where not only Plato and Pythagoras but also Moses, Hermes Trismegistus, and the Chaldaean oracles live happily together. Given the mass (and the dispersal) of the pertinent materials and the complexity of the traditions involved, the texts presented here can have nothing more than an indicative value. Many texts have been simply omitted, and interested readers will often have to complete the few sentences included by using specialized editions and collections. Orientation can be derived from the complete texts of the *Lives* of Pythagoras by Porphyry and Iamblichus, and from the collection by K. S. Guthrie indicated below.

PYTHAGOREAN RECEPTION

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EARLY GREEK PHILOSOPHY IV

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R

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References and Allusions in Plato (R1–R5)

A Reference by Name to Pythagoras (PYTH. b T1)

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An Explicit Reference to the Pythagoreans (R1)

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PYTHAGORAS AND THE PYTHAGOREANS: RECEPTION

R

*Pre-Platonic Reports and Allusions Regarding
Pythagoras (Heraclitus, Ion of Chios, Herodotus,
Democritus; Xenophanes, Empedocles?)*

See **PYTH. a P27–P33**

*References and Allusions in Plato (R1–R5)
A Reference by Name to Pythagoras*

Cf. **PYTH. b T1**

A Reference by Name to Philolaus

Cf. **PHILOL. P4**

An Explicit Reference to the Pythagoreans (R1)

R1 (cf. ad 47 B1) Plat. *Rep.* 7.530d

[ΣΩ.] κινδυνεύει [. . .] ὡς πρὸς ἀστρονομίαν ὄμματα

PYTHAGORAS AND THE PYTHAGOREANS: RECEPTION

R

*Pre-Platonic Reports and Allusions Regarding
Pythagoras (Heraclitus, Ion of Chios, Herodotus,
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A Reference by Name to Philolaus

Cf. **PHILOL. P4**

An Explicit Reference to the Pythagoreans (R1)

R1 (cf. ad 47 B1) Plato, *Republic*

[Socrates:] It is quite possible [. . .] that just as the eyes

πέπηγεν ὥς πρὸς ἑναρμόνιον φορὰν ὧτα παγῆναι, καὶ αὗται ἀλλήλων ἀδελφαί τινες αἱ ἐπιστῆμαι εἶναι, ὥς οἱ τε Πυθαγόρειοί φασι καὶ ἡμεῖς, ὧ Γλαύκων, συγχωροῦμεν.

Allusions to the Pythagoreans (R2–R4)

R2 (≠ DK) Plat. *Rep.* 7.531c

[ΣΩ.] τοὺς γὰρ ἐν ταύταις ταῖς συμφωνίαις ταῖς ἀκουόμεναις ἀριθμοὺς ζητοῦσιν, ἀλλ' οὐκ εἰς προβλήματα ἀνίστασιν, ἐπισκοπεῖν τίνες σύμφωνοι ἀριθμοὶ καὶ τίνες οὐ, καὶ διὰ τί ἐκότεροι.

R3 (≠ DK) Plat. *Phil.* 16c

[ΣΩ.] [. . .] καὶ οἱ μὲν παλαιοί, κρείττονες ἡμῶν καὶ ἐγγυτέρω θεῶν οἰκοῦντες, ταύτην φήμην παρέδοσαν, ὥς ἐξ ἑνὸς μὲν καὶ πολλῶν ὄντων τῶν αἰεὶ λεγομένων εἶναι, πέρας δὲ καὶ ἀπειρίαν ἐν αὐτοῖς σύμφυτον ἐχόντων.

R4 (< 44 B14) Plat. *Gorg.* 493a–b

[ΣΩ.] ἤδη γάρ του ἔγωγε καὶ ἤκουσα τῶν σοφῶν ὥς νῦν ἡμεῖς τέθναμεν καὶ τὸ μὲν σῶμά ἐστιν ἡμῖν σῆμα, τῆς δὲ ψυχῆς τοῦτο ἐν ᾧ αἱ ἐπιθυμίαι εἰσὶ τυγχάνει ὃν οἶον ἀναπείθεσθαι καὶ μεταπίπτειν ἄνω κάτω, καὶ τοῦτο ἄρα τις μυθολογῶν κομψὸς ἀνὴρ, ἴσως Σικελός

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have been constructed for the purpose of astronomy, so too the ears have been constructed for harmonic movement, and that these sciences are as it were sisters of one another, as at the same time the Pythagoreans say [cf. **ARCHY. D14**] and as we ourselves agree, Glaucon [. . .].

Allusions to the Pythagoreans (R2–R4)

R2 (≠ DK) Plato, *Republic*

[Socrates:] They look for the numbers found in these concords that are audible, but they do not ascend to the problems that consist in investigating which numbers are in accord with one another and which ones are not, and why this is so in both cases.

R3 (≠ DK) Plato, *Philebus*

[Socrates:] [. . .] and the ancients, who were better than we are and who dwelt closer to the gods, have passed down to us this tradition, that the things that are said always to exist come from one and many, and that they possess limit and unlimitedness within their own nature [cf. **PHILOL. D2–D3**].

R4 (< 44 B14) Plato, *Gorgias*

[Socrates:] [. . .] I myself once heard one of the sages say that at present we are dead, and our body (*sôma*) is our tomb (*sêma*), and that the part of the soul in which desires are located is capable of being persuaded and of being tossed now upward, now downward; and so some smart

τις ἢ Ἰταλικός, παράγων τῷ ὀνόματι διὰ τὸ πιθανόν
τε καὶ πειστικὸν ὠνόμασε πίθον, τοὺς δὲ ἀνοήτους
ἀμνήτους, τῶν δ' ἀνοήτων¹ τοῦτο τῆς ψυχῆς οὐ αἰ ἐπι-
θυμίαι εἰσὶ, τοῦ ἀκόλαστον αὐτοῦ³ καὶ οὐ στεγανόν,
ὡς τετρημένος εἶη πίθος διὰ τὴν ἀπληστίαν ἀπεικά-
σας.

¹ ἀνοήτων F: ἀμνήτων BTWf

² <συνεῖς> τὸ Dodds

³ αὐτοῦ secl. Sauppe

*A Reference That Perhaps Also
Concerns the Pythagoreans (R5)*

R5 (≠ DK) Plat. *Men.* 81b

[ΣΩ.] φασὶ γὰρ τὴν ψυχὴν τοῦ ἀνθρώπου εἶναι ἀθά-
νατον, καὶ τοτὲ μὲν τελευτᾶν—ὃ δὲ ἀποθνήσκειν κα-
λοῦσι—τοτὲ δὲ πάλιν γίγνεσθαι, ἀπόλλυσθαι δ' οὐ-
δέποτε· δεῖν δὲ διὰ ταῦτα ὡς ὀσιώτατα διαβιῶναι τὸν
βίον [. . .].

*References by Name to Archytas in (Ps.-)P
Plato's Seventh Letter*

Cf. **ARCHY. P11**

PYTHAGOREAN RECEPTION

man, perhaps a Sicilian or an Italian,¹ speaking in the form of a myth, called this part, slightly modifying the word, a 'jar' (*pithos*) because it is capable of being persuaded (*pithanos*) and influenced (*peistikos*), while those who are unintelligent he called 'uninitiated'—making an image for this part of the soul of the unintelligent, where the desires are located, the uncontrolled and leaky part, as though it were a cracked jar, because it cannot be filled.

¹ Perhaps Philolaus?

*A Reference That Perhaps Also
Concerns the Pythagoreans (R5)*

R5 (≠ DK) Plato, *Meno*

[Socrates:] They [i.e. certain priests and priestesses, as well as divine poets like Pindar] say that the soul [i.e. the life] of a human being is immortal, and at one time comes to an end (what they call dying), and at another time is born again, without ever being destroyed. And this is why one must live one's life in as holy a fashion as possible [. . . citation of Pindar = **MOR. T32d**].

*References by Name to Archytas in (Ps.-?)
Plato's Seventh Letter*

Cf. **ARCHY. P11**

EARLY GREEK PHILOSOPHY IV

The Pythagoreans in the Old Academy and Peripatos (R6–R32) Works Dedicated to the Pythagoreans (R6–R8)

R6

a (< 44 A13) Ps.-Iambl. *Theol.*, p. 82.10–20

Σπεύσιππος [. . .] Περὶ Πυθαγορικῶν ἀριθμῶν [Frag.
28 Tarán, 122 Isnardi-Parente]

b (≠ DK) Diog. Laert. 4.13

Ξενοκράτης [. . .] Πυθαγόρεια α' [p. 158 Heinze]

c (47 A13, 49.2) Diog. Laert. 5.25

Ἀριστοτέλης [. . .] Περὶ τῆς Ἀρχυτείου φιλοσοφίας α'
β' γ' [. . .] Πρὸς τοὺς Πυθαγορείους α' [. . .] Περὶ τῶν
Πυθαγορείων α' [. . .] Τὰ ἐκ τοῦ Τιμαίου καὶ Ἀρχυ-
τείων α' [pp. 6–7 Rose]

d (≠ DK) Diog. Laert. 5.86 et 88

Ἡρακλείδης [. . .] Περὶ τῶν Πυθαγορείων [Frag. 22.40–
41 Wehrli]

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The Pythagoreans in the Old Academy and Peripatos (R6–R32) Works Dedicated to the Pythagoreans (R6–R8)

R6

a (< 44 A13) Ps.-Iamblichus, *Theology of Arithmetic*
Speusippus, [. . .] *On the Pythagorean Numbers*

b (≠ DK) Diogenes Laertius

Xenocrates, [. . .] *Pythagorean Subjects* (one book)

c (47 A13, 49.2) Diogenes Laertius

Aristotle, [. . .] *On the Philosophy of Archytas* (three books), *On* [or: *Against*] *the Pythagoreans* (one book), *On the Pythagoreans* (one book), *Extracts from the Timaeus and the Writings of Archytas* (one book)

d (≠ DK) Diogenes Laertius

Heraclides [scil. of Pontus], [. . .] *On the Pythagoreans*¹

¹ Heraclides also spoke about Pythagoras in his *Abaris* (Frag. 73–75 Wehrli) and in *On the Woman Who Stopped Breathing* (Frag. 76–89 Wehrli).

e Aristoxenus (cf. Frag. 11–41 et 47–50 Wehrli)

Ἀριστόξενος [. . .]

(< 14.8) Περὶ Πυθαγόρου καὶ τῶν γνωρίμων αὐτοῦ
(Diog. Laert. 1.118)

(≠ DK) Πυθαγόρεια α' (Diog. Laert. 4.13)

(≠ DK) Πυθαγόρου βίος (Porph. VP 59)

(58D., cf. D.11) Πυθαγορικαὶ ἀποφάσεις (Stob.
1.6.18 et al.)

(cf. 47 A9) Ἀρχύτα βίος (Athen. *Deipn.* 12.545A)

R7 (< 44 A13) Ps.-Iambl. *Theol.*, pp. 82.10–83.5 (= Speus.
Frag. 28 Tarán, 122 Isnardi-Parente)

Σπεύσιππος [. . .] διάδοχος δὲ Ἀκαδημίας πρὸ¹
Ξενοκράτου, ἐκ τῶν ἐξαιρέτως σπουδασθεισῶν αἰὲ
Πυθαγορικῶν ἀκροάσεων, μάλιστα δὲ τῶν Φιλολάου
συγγραμμάτων, βιβλιδίων τι συντάξας γλαφυρὸν
ἐπέγραψε μὲν αὐτὸ Περὶ Πυθαγορικῶν ἀριθμῶν, ἀπ'
ἀρχῆς δὲ μέχρι ἡμίσεως περὶ τῶν ἐν αὐτοῖς² γραμμι-
κῶν ἐμμελέστατα διεξελθὼν πολυγωνίων τε καὶ παν-
τοίων τῶν ἐν ἀριθμοῖς ἐπιπέδων ἅμα καὶ στερεῶν,³
περὶ τε⁴ τῶν πέντε σχημάτων, ἃ τοῖς κοσμικοῖς ἀπο-
δίδονται στοιχείοις, ἰδιότητός <τε>⁵ αὐτῶν καὶ πρὸς
ἄλληλα⁶ κοινότητος, <περὶ>⁷ ἀναλογίας τε καὶ ἀντακο-
λουθίας,⁸ μετὰ ταῦτα λοιπὸν θάτερον τὸ⁹ τοῦ βιβλίου
ἡμῖς περὶ δεκάδος ἀντικρὺς ποιεῖται, φυσικωτάτην
αὐτὴν ἀποφαίνων καὶ τελεστικωτάτην τῶν ὄντων, οἷον

¹ παρὰ mss., corr. Boeckh

² αὐτῶ mss., corr. edd.

e Diogenes Laertius, Porphyry, Stobaeus, Athenaeus

Aristoxenus,

(< 14.8) *On Pythagoras and His Companions* (Diogenes Laertius)

(≠ DK) *Pythagorean Subjects* (one book: Diogenes Laertius)

(≠ DK) *Life of Pythagoras* (Porphyry)

(58D., cf. D.11) *Pythagorean Precepts* (Stobaeus)

(cf. 47 A9) *Life of Archytas* (Athenaeus)

R7 (< 44 A13) Ps.-Iamblichus, *Theology of Arithmetic*

Speusippus [. . .], who was the successor as head of the Academy before Xenocrates, composed on the basis of the Pythagoreans' teachings (for which he always demonstrated a particular zeal), and most of all on that of Philolaus' writings, a refined little book that he entitled *On the Pythagorean Numbers*. In the first half of this book, he provides a very elegant explanation for linear numbers, polygonal numbers, and all kinds of plane and solid numbers, and for the five figures that are attributed to the cosmic elements, their individual properties and the ones they share with each other, their analogies and correspondences. After this, he dedicates the second half of the book directly to the decad, stating that it is the most natural and the most effective among the things that exist, like the

³ πολυγωνίοις . . . παντοίοις τοῖς . . . ἐπιπέδοις . . . στε-
 ρεοῖς mss., corr. Ast ⁴ τι mss., corr. edd. ⁵ <τε> Diels post
 Lang ⁶ πρὸς ἄλληλα καὶ mss., transp. Tannery ⁷ <περὶ>
 De Falco post Tannery ⁸ ἀνακολουθίας Ast ⁹ τὸ
 secl. Diels

εἰδός τι τοῖς κοσμοικοῖς ἀποτελέσμασι τεχνικὸν ἀφ' ἐαυτῆς (ἀλλ' οὐχ ἡμῶν νομισάντων ἢ ὡς ἔτυχε) θεμέλιον¹⁰ ὑπάρχουσιν καὶ παράδειγμα παντελέστατον τῷ τοῦ παντὸς ποιητῇ θεῷ προεκκειμένην.¹¹

¹⁰ θεμένων MLNBF, θέλλων P: corr. Diels ¹¹ ὑπάρχουσα . . . προεκκειμένη (vel προσ-) mss., corr. Diels

R8 (≠ DK) Heracl. Pont. in Clem. Alex. *Strom.* 2.130.3 (Frag. 44 Wehrli)

Πυθαγόραν δὲ ὁ Ποντικὸς Ἡρακλείδης ἱστορεῖ τὴν ἐπιστήμην τῆς τελειότητος¹ τῶν ἀριθμῶν² τῆς ψυχῆς εὐδαιμονίαν εἶναι παραδεδωκέναι.

¹ τὴν τελεωτάτην Hoyer ² ἀριθμῶν Potter ex Theod. *Cur.* 11.6: ἀρετῶν ms.

*Aristotle and the Peripatetics on Plato and the
Pythagoreans: Similarities and
Differences (R9–R13)*

R9 (< 58B.13) Arist. *Metaph.* A6 987b22–29

[. . .] τὸ μέντοι γε ἐν οὐσίᾳ εἶναι, καὶ μὴ ἕτερόν τι ὄν λέγεσθαι ἔν, παραπλησίως τοῖς Πυθαγορείοις ἔλεγε, καὶ τὸ τοὺς ἀριθμοὺς αἰτίους εἶναι τοῖς ἄλλοις τῆς οὐσίας ὡσαύτως ἐκείνοις· τὸ δὲ ἀντὶ τοῦ ἀπείρου ὡς ἐνὸς δυνάδα ποιῆσαι, τὸ δ' ἄπειρον ἐκ μεγάλου καὶ μικροῦ, τοῦτ' ἴδιον· καὶ ἔτι ὁ μὲν τοὺς ἀριθμοὺς παρὰ

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artisanal form of the events that take place in the universe, that it exists by itself as a foundation and not because of our own thoughts or arbitrary conventions, and that it presents itself as the most perfect paradigm to the god that has created everything.

R8 (\neq DK) Heraclides of Pontus in Clement of Alexandria, *Stromata*

Heraclides of Pontus reports that Pythagoras teaches that knowledge of the perfection of numbers is the happiness of the soul.

Aristotle and the Peripatetics on Plato and the Pythagoreans: Similarities and Differences (R9–R13)

R9 (< 58B.13) Aristotle, *Metaphysics*

[. . .] that the one is a substance, and that no other thing is said to be one, he [i.e. Plato] said this in a way very similar to the Pythagoreans, and also that the numbers are causes for the other things for their being, [scil. he said] just like them. As for positing the dyad instead of the unlimited, in the idea that it is one, and deriving the unlimited from the large and the small, this is peculiar to him. Furthermore, he posits the numbers apart from the per-

τὰ αἰσθητά, οἱ δ' ἀριθμοὺς εἶναί φασιν αὐτὰ τὰ πράγματα, καὶ τὰ μαθηματικὰ μεταξὺ τούτων οὐ τίθεασιν.

R10 (58B.12) Arist. *Metaph.* A6 987b10–14

τὴν δὲ μέθεξιν τοῦνομα μόνον μετέβαλεν· οἱ μὲν γὰρ Πυθαγόρειοι μιμήσει τὰ ὄντα φασὶν εἶναι τῶν ἀριθμῶν, Πλάτων δὲ μεθέξει, τοῦνομα μεταβαλὼν. τὴν μέντοι γε μέθεξιν ἢ τὴν μίμησιν ἥτις ἂν εἴη τῶν εἰδῶν ἀφείσαν ἐν κοινῷ ζητεῖν.

R11 (47 A13) Arist. in Dam. *In Parm.* vol. 3, p. 74.19–21

Ἀριστοτέλης δὲ ἐν τοῖς Ἀρχυτείοις ἱστορεῖ [Frag. 207 Rose] καὶ Πυθαγόραν ἄλλο τὴν ὕλην καλεῖν ὡς ῥευστὴν καὶ αἰεὶ ἄλλο καὶ ἄλλο γιγνόμενον.

R12 (< 58B.14) Theophr. *Metaph.* 11a27–b3

Πλάτων δὲ καὶ οἱ Πυθαγόρειοι μακρὰν τὴν ἀπόστασιν, ἐπεὶ μιμεῖσθαί¹ γ' ἐθέλειν ἅπαντα· καίτοι καθάπερ ἀντίθεσίν τινα ποιοῦσιν τῆς ἀορίστου δυνάδος καὶ τοῦ ἐνός [. . .].

¹ ἐπεὶ μιμεῖσθαί Allan: ἐπιμιμεῖσθαι mss.: alii alia

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ceptibles, while they say that the things themselves are numbers, and they do not make the mathematical objects intermediaries between the two.

R10 (58B.12) Aristotle, *Metaphysics*

He [i.e. Plato] did nothing more than change the name to 'participation' (*methexis*). For the Pythagoreans say that the things that are exist by 'imitation' (*mimesis*) of numbers, Plato by 'participation': he changes the name. But they left open the question what participation in the forms or imitation of them might be.

R11 (47 A13) Aristotle in Damascius, *Commentary on Plato's Parmenides*

Aristotle reports in his writings *On Archytas* that Pythagoras too called matter 'other' since it is fluid and is always becoming something other.

R12 (< 58B.14) Theophrastus, *Metaphysics*

Plato and the Pythagoreans [scil. say that] the distance is great, if it is true that everything has a desire to imitate; and yet they admit a kind of opposition between the unlimited dyad and the one [. . .].

R13 (58B.32) Eudem. in Simpl. *In Phys.*, p. 431.13–16 (= Frag. 27 Wehrli)

[. . . cf. **ARCHY. D20**] τὸ δὲ ἀόριστον, φησί, καλῶς ἐπὶ τὴν κίνησιν οἱ Πυθαγόρειοι καὶ ὁ Πλάτων ἐπιφέρουσιν (οὐ γὰρ δὴ ἄλλος γε οὐδεὶς περὶ αὐτῆς εἴρηκεν)· ἀλλὰ γὰρ ὀριστὴ¹ οὐκ² ἔστι, καὶ τὸ ἀτελὲς δὴ καὶ τὸ μὴ ὄν· γίνεται γάρ, γινόμενον δὲ οὐκ ἔστι.

¹ ὥρισται mss., corr. Diels

² οὐκ E: καὶ οὐκ F

*Aristotle on Speusippus and the
Pythagoreans (R14)*

R14 (58B.11) Arist. *Metaph.* Δ7 1072b30–34

ὅσοι δὲ ὑπολαμβάνουσιν, ὥσπερ οἱ Πυθαγόρειοι καὶ Σπεύσιππος [Frag. 42a Tarán], τὸ κάλλιστον καὶ ἄριστον μὴ ἐν ἀρχῇ εἶναι, διὰ τὸ καὶ τῶν φυτῶν καὶ τῶν ζώων τὰς ἀρχὰς αἷτια μὲν εἶναι, τὸ δὲ καλὸν καὶ τέλειον ἐν τοῖς ἐκ τούτων, οὐκ ὀρθῶς οἴονται.

*Aristotelian Criticisms (R15–R26)
On Definition (R15)*

R15 (< 58B.8) Arist. *Metaph.* Α5 987a19–27

[. . . = **PYTHS. ANON. D3**] λίαν δ' ἀπλῶς ἐπραγματεύθησαν. ὠρίζοντό τε γὰρ ἐπιπολαίως, καὶ ᾧ πρῶτῳ ὑπάρξειεν ὁ λεχθεὶς ὅρος, τοῦτ' εἶναι τὴν οὐσίαν τοῦ

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R13 (58B.32) Eudemus in Simplicius, *Commentary on Aristotle's Physics*

[. . .] The indefinite (*aoriston*), he [i.e. Eudemus] says, is referred correctly by the Pythagoreans and Plato to movement (for no one else has spoken about this latter). For this is not definite (?), and so too what is incomplete and what does not exist; for it becomes and, becoming, it does not exist.

Aristotle on Speusippus and the Pythagoreans (R14)

R14 (58B.11) Aristotle, *Metaphysics*

All those who suppose, like the Pythagoreans and Speusippus, that the most beautiful and the best are not located in the principle, because the principles of plants and animals are causes, while the beautiful and the perfect are located in the things that derive from them, do not think correctly.

Aristotelian Criticisms (R15–R26) On Definition (R15)

R15 (< 58B.8) Aristotle, *Metaphysics*

[. . .] but they studied this subject in too simple a manner. For at the same time their definitions were superficial and they thought that what the stated definition applied to first

πράγματος ἐνόμισαν, ὥσπερ εἴ τις οἴοιτο ταὐτὸν εἶναι διπλάσιον καὶ τὴν δυνάδα διότι πρῶτον ὑπάρχει τοῖς δυσι τὸ διπλάσιον. ἀλλ' οὐ ταὐτὸν ἴσως ἐστὶ τὸ εἶναι διπλασίῳ καὶ δυνάδι· εἰ δὲ μή, πολλὰ τὸ ἐν ἔσται, ὃ κακείνοις συνέβαινεν.

*On the Delimitation between Mathematics,
Physics, and First Philosophy (R16–R18)*

R16 (< 58B.37) Arist. *Cael.* 2.13 293a25–27

[. . . **PYTHS. ANON. D36**] οὐ πρὸς τὰ φαινόμενα τοὺς λόγους καὶ τὰς αἰτίας ζητοῦντες, ἀλλὰ πρὸς τινὰς λόγους καὶ δόξας αὐτῶν τὰ φαινόμενα προσέλκοντες καὶ πειρώμενοι συγκοσμεῖν.

R17 (< 58B.26) Arist. *Metaph.* N3 1091a18–20

ἀλλ' ἐπειδὴ κοσμοποιοῦσι καὶ φυσικῶς βούλονται λέγειν, δίκαιον αὐτοὺς ἐξετάζειν τι περὶ φύσεως, ἐκ δὲ τῆς νῦν ἀφείναι μεθόδου.

R18 (< 58B.22) Arist. *Metaph.* A8 989b29–34, 990a5–8

οἱ μὲν οὖν καλούμενοι Πυθαγόρειοι ταῖς μὲν ἀρχαῖς καὶ τοῖς στοιχείοις ἐκτοπωτέως χρῶνται τῶν φυσιολόγων (τὸ δ' αἴτιον ὅτι παρέλαβον αὐτὰς οὐκ ἐξ αἰσθητῶν· τὰ γὰρ μαθηματικὰ τῶν ὄντων ἄνευ κινήσεως ἐστὶν ἔξω τῶν περὶ τὴν ἀστρολογίαν) διαλέγον-

of all was the substance of the thing, as though one thought that the double and the dyad are the same thing because 'double' is applied first of all to dualities. But surely the essence of the double and that of the dyad are not identical; for otherwise the one will be many—which also happened to them.

*On the Delimitation between Mathematics,
Physics, and First Philosophy (R16–R18)*

R16 (< 58B.37) Aristotle, *On the Heavens*

[...] they [i.e. "those who are called Pythagoreans"] do not seek explanations and causes that would be adapted to the phenomena, but they drag the phenomena in the direction of some of their own explanations and opinions and try to adjust them.

R17 (< 58B.26) Aristotle, *Metaphysics*

Since they are generating the world and want to speak as natural philosophers do, it is fair to examine them also with regard to nature, but to dismiss them from the present inquiry [scil. first philosophy or 'metaphysics'].

R18 (< 58B.22) Aristotle, *Metaphysics*

The people called Pythagoreans use principles and elements in a stranger way than the natural philosophers do (the reason for this is that they did not derive them from the perceptibles; for, among the things that are, mathematical entities are without movement, except for those that belong to astronomy): and yet everything that they

ται μέντοι καὶ πραγματεύονται περὶ φύσεως πάντα·
[. . . = **PYTHS. ANON. D5**] [990a5] τὰς δ' αἰτίας καὶ
τὰς ἀρχάς, [. . .] ἱκανὰς λέγουσιν ἐπαναβῆναι καὶ ἐπὶ
τὰ ἀνωτέρω τῶν ὄντων, καὶ μᾶλλον ἢ τοῖς περὶ φύ-
σεως λόγοις ἀρμοτούσας [= . . . **R19**].

*On the Recourse to Numbers as Principles in
Explanations of Natural Phenomena (R19–R21)*

R19 (58B.22) Arist. *Metaph.* A8 990a8–29

[. . . = **R18**] ἐκ τίνος μέντοι τρόπου κίνησις ἔσται
πέρατος καὶ ἀπείρου μόνων ὑποκειμένων καὶ περιττῶ
καὶ ἀρτίου, οὐθὲν λέγουσιν, ἢ πῶς δυνατόν ἄνευ κι-
νήσεως καὶ μεταβολῆς γένεσιν εἶναι καὶ φθορὰν ἢ τὰ
τῶν φερομένων ἔργα κατὰ τὸν οὐρανόν.

ἔτι δὲ εἴτε δοίη τις αὐτοῖς ἐκ τούτων εἶναι μέγεθος
εἴτε δειχθείη τοῦτο, ὅμως τίνα τρόπον ἔσται τὰ μὲν
κούφα τὰ δὲ βάρος ἔχοντα τῶν σωμάτων; ἐξ ὧν γὰρ
ὑποτίθενται [990a15] καὶ λέγουσιν, οὐθὲν μᾶλλον περὶ
τῶν μαθηματικῶν λέγουσι σωμάτων ἢ περὶ τῶν αἰ-
σθητῶν διὸ περὶ πυρὸς ἢ γῆς ἢ τῶν ἄλλων τῶν
τοιούτων σωμάτων οὐδ' ὅτιοῦν εἰρήκασιν, ἅτε οὐθὲν
περὶ τῶν αἰσθητῶν οἶμαι λέγοντες ἴδιον.

ἔτι δὲ πῶς δεῖ λαβεῖν αἷτια μὲν εἶναι τὰ τοῦ ἀριθ-
μοῦ πάθη καὶ τὸν ἀριθμὸν [990a20] τῶν κατὰ τὸν
οὐρανὸν ὄντων καὶ γιγνομένων καὶ ἐξ ἀρχῆς καὶ νῦν,
ἀριθμὸν δ' ἄλλον μηθένα εἶναι παρὰ τὸν ἀριθμὸν

discuss and consider bears upon nature. [. . .] As for the causes and principles [. . .], the ones they discuss are sufficient for progressing in the direction of the highest beings as well, and they agree more [scil. with these] than with reasonings about nature [. . .].

*On the Recourse to Numbers as Principles in
Explanations of Natural Phenomena (R19–R21)*

R19 (58B.22) Aristotle, *Metaphysics*

[. . .] But in what way there will be motion if one only posits the limit and the unlimited, and the odd and the even—they do not say anything at all about this, nor how generation and destruction are possible without motion or transformation, or the behavior of bodies that move in the heavens.

Moreover, if one granted to them that magnitude is constituted out of these [scil. principles] or this had been demonstrated, all the same in what way will some bodies be light and others heavy? For on the basis of what they posit [990a15] and say, they do not speak more about the mathematical bodies than about the perceptible ones. And this is why they have not said anything at all about fire or earth or the other bodies of this sort, because, I suppose, they say nothing of their own about the perceptibles.

Moreover, how should we understand it that the affections of number and number are causes [990a20] of the things that exist and come to be in the heavens, both from the beginning and now, and that no other number exists

τοῦτον ἐξ οὗ συνέστηκεν ὁ κόσμος; ὅταν γὰρ ἐν τῷ μὲν τῷ μέρει δόξα καὶ καιρὸς αὐτοῖς ἦ, μικρὸν δὲ ἄνωθεν ἢ κάτωθεν ἀδικία καὶ κρίσις¹ ἢ μῖξις, ἀπόδειξιν δὲ λέγωσιν ὅτι [990a25] τούτων ἐν² ἕκαστον ἀριθμός ἐστι, συμβαίνει³ δὲ κατὰ τὸν τόπον τοῦτον ἡδὴ πλήθος εἶναι τῶν συνισταμένων μεγεθῶν διὰ τὸ τὰ πάθη ταῦτα ἀκολουθεῖν τοῖς τόποις ἐκάστοις, πότερον οὗτος ὁ αὐτός ἐστιν ἀριθμός, ὁ ἐν τῷ οὐρανῷ, ὃν δεῖ λαβεῖν ὅτι τούτων ἕκαστόν ἐστιν, ἢ παρὰ τοῦτον ἄλλος;

¹ κρίσις A^b: διάκρισις E
βαίνει mss., corr. Bonitz

² ἐν A^b: μὲν ἐν E

³ συμ-

R20 (58B.10) Arist. *Metaph.* M8 1083b8–19

ὁ δὲ τῶν Πυθαγορείων τρόπος τῇ μὲν ἐλάττους ἔχει δυσχερείας τῶν πρότερον εἰρημένων, τῇ δὲ ἰδίας ἐτέρας. τὸ μὲν γὰρ μὴ χωριστὸν ποιεῖν τὸν ἀριθμὸν ἀφαιρεῖται πολλὰ τῶν ἀδυνάτων· τὸ δὲ τὰ σώματα ἐξ ἀριθμῶν εἶναι συγκείμενα, καὶ τὸν ἀριθμὸν τοῦτον εἶναι μαθηματικόν, ἀδύνατόν ἐστιν. οὔτε γὰρ ἄτομα μεγέθη λέγειν ἀληθές, εἴ θ' ὅτι μάλιστα τοῦτον ἔχει τὸν τρόπον, οὐχ αἶ γε μονάδες μέγεθος ἔχουσιν μέγεθος δὲ ἐξ ἀδιαιρέτων συγκείσθαι πῶς δυνατόν; ἀλλὰ μὴν ὃ γ' ἀριθμητικὸς ἀριθμὸς μοναδικός ἐστιν. ἐκεῖνοι δὲ τὸν ἀριθμὸν τὰ ὄντα λέγουσιν· τὰ γοῦν θεωρήματα προσάπτουσι τοῖς σώμασιν ὥς ἐξ ἐκείνων ὄντων τῶν ἀριθμῶν.

besides this number out of which the world is constituted? For when opinion and occasion are located for them in this region, and a little lower or higher injustice, judgment, or mixture, and they say as a proof for this that [990a25] each of these things is a number [cf. **PYTHS. ANON. D19**], and it happens that in this place there is already a multitude of constituted magnitudes because these affections follow each of the places: is this the same number, the one that is located in the heavens, of which we must understand that it is each of these things, or some other one besides this?

R20 (58B.10) Aristotle, *Metaphysics*

In one regard the method of the Pythagoreans encounters fewer difficulties than the ones we spoke of earlier [scil. the various theories about ideas and numbers of Platonic allegiance], but in another it encounters others that are peculiar to it. For not to separate number removes many impossibilities; but that bodies be composed out of numbers, and that this number be the mathematical number—this is impossible. For it is not true to speak of indivisible magnitudes, and even if there were magnitudes of this sort, the units at least do not have magnitude; and how can a magnitude be constituted out of indivisibles? But certainly arithmetical number, at least, is constituted out of unities. But these people say that the things that are are number. At any rate they apply their theoretical conceptions to bodies as though they consisted of those numbers.

R21 (58B.38) Arist. *Cael.* 3.1 300a14–19

τὸ δ' αὐτὸ συμβαίνει καὶ τοῖς ἐξ ἀριθμῶν συντιθείσι
τὸν οὐρανόν· ἔνιοι γὰρ τὴν φύσιν ἐξ ἀριθμῶν συν-
ιστᾶσιν, ὥσπερ τῶν Πυθαγορείων τινές· τὰ μὲν γὰρ
φυσικὰ σώματα φαίνεται βάρος ἔχοντα καὶ κουφό-
τητα, τὰς δὲ μονάδας οὔτε σώματα ποιεῖν οἶόν τε συν-
τιθεμένας οὔτε βάρος ἔχειν.

On the Unlimited Principle (R22)

R22 (58B.29) Arist. *Phys.* 3.5 204a29–34

κατὰ συμβεβηκὸς ἄρα ὑπάρχει τὸ ἄπειρον· ἀλλ' εἰ
οὕτως, εἴρηται ὅτι οὐκ ἐνδέχεται αὐτὸ λέγειν ἀρχήν,
ἀλλ' ᾧ συμβέβηκε, τὸν ἀέρα ἢ τὸ ἄρτιον. ὥστε ἀτό-
πως ἂν ἀποφαίνοντο οἱ λέγοντες οὕτως ὥσπερ οἱ
Πυθαγόρειοί φασιν· ἅμα γὰρ οὐσίαν ποιοῦσι τὸ ἄπει-
ρον καὶ μερίζουσιν.

On Cosmology (R23–R24)

R23 (< 58B.9) Arist. *Metaph.* M6 1080b20–21

[. . . **PYTHS. ANON. D21**] ὅπως δὲ τὸ πρῶτον ἐν
συνέσῃ ἔχον μέγεθος, ἀπορεῖν εἰκότα.

R24 (< 58B.37) Arist. *Cael.* 2.13 293b4–10

[. . . **PYTHS. ANON. D10**] ὥσπερ τὸ μέσον ἀπλῶς

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R21 (58B.38) Aristotle, *On the Heavens*

The same difficulty [scil. as the one encountered by the Platonic theory of the generation of bodies starting from elementary surfaces] comes about for those who compose the heavens out of numbers (for some people compose nature out of numbers, like some of the Pythagoreans). For it is evident that natural bodies possess weight and lightness, whereas monads, when they are composed, are not capable either of forming a body or of possessing weight.

On the Unlimited Principle (R22)

R22 (58B.29) Aristotle, *Physics*

So the unlimited is predicated contingently. But if this is so, as I have said, it is not possible to say that it is a principle, but [scil. the principle is] that of which it is predicated, the air or the even. So that the statement of those who speak as the Pythagoreans do might seem to be absurd: for at one and the same time they make the unlimited a substance and divide it into parts.

On Cosmology (R23–R24)

R23 (< 58B.9) Aristotle, *Metaphysics*

[...] How the first One, which possesses a magnitude, was formed, they seem to have difficulties explaining.

R24 (< 58B.37) Aristotle, *On the Heavens*

[...], as though the center were spoken of in a simple way,

λεγόμενον, καὶ τὸ τοῦ μεγέθους μέσον καὶ τοῦ πρά-
γματος ὃν μέσον καὶ τῆς φύσεως. καίτοι καθάπερ ἐν
τοῖς ζώοις οὐ ταῦτόν τοῦ ζώου καὶ τοῦ σώματος μέ-
σον, οὕτως ὑποληπτέον μᾶλλον καὶ περὶ τὸν ὅλον
οὐρανόν. διὰ μὲν οὖν ταύτην τὴν αἰτίαν οὐθὲν αὐτοὺς
δεῖ θορυβεῖσθαι περὶ τὸ πᾶν, οὐδ' εἰσάγειν φυλακὴν
ἐπὶ τὸ κέντρον, ἀλλ' ἐκείνο ζητεῖν τὸ μέσον, ποῖόν τι
καὶ ποῦ πέφυκεν.

On the Harmony of the Spheres (R25)

R25 (≠ DK)

a Arist. *Cael.* 2.9 290b30–291a6

[. . . = **PYTHS. ANON. D46**] ταῦτα δὴ [. . .] ἐμμελῶς
μὲν λέγεται καὶ μουσικῶς, ἀδύνατον δὲ τοῦτον ἔχειν
τὸν τρόπον. οὐ γὰρ μόνον τὸ μηθὲν ἀκούειν ἄτοπον,
περὶ οὗ λέγειν ἐγχειροῦσι¹ τὴν αἰτίαν,² ἀλλὰ καὶ τὸ
μηδὲν πᾶσχειν χωρὶς αἰσθήσεως. οἱ γὰρ ὑπερβάλ-
λοντες ψόφοι διακναίουσι καὶ τῶν ἀψύχων σωμάτων
τοὺς ὄγκους, οἷον ὁ τῆς βροντῆς δίστησι λίθους καὶ
τὰ καρτερώτατα τῶν σωμάτων. τοσοῦτων δὲ φερομέ-
νων, καὶ τοῦ ψόφου διόντος πρὸς τὸ φερόμενον μέγε-
θος, πολλαπλάσιον μέγεθος ἀναγκαῖον ἀφικνεῖσθαι
τε δεῦρο καὶ τὴν ἰσχὺν ἀμήχανον εἶναι τῆς βίας. ἀλλ'
εὐλόγως οὐτ' ἀκούομεν οὔτε πᾶσχοντα φαίνεται τὰ
σώματα βίαιον οὐδὲν πάθος, διὰ τὸ μὴ ψοφεῖν.

¹ ἐγχειροῦσι EH: ἐπιχειροῦσι J

whether it is the center of a magnitude or the center of a thing or of nature. But just as in animals the center of the animal is not that of the body, so too and even more one must think that this is how it is with regard to the totality of the heavens. This is the reason why these people [i.e. the Pythagoreans] should not be disturbed with regard to the whole, nor introduce a guard in the center, but instead should seek what kind this center is and where it is located.

On the Harmony of the Spheres (R25)

R25 (≠ DK)

a Aristotle, *On the Heavens*

[. . .] These things [. . .] are said harmoniously and musically, but it is impossible that matters be this way. For it is not only strange that we do not hear anything—a fact for which they undertake to indicate the reason—but also, independently even of sensation, we do not suffer any effect. For excessive noises also tear apart the masses of inanimate bodies, like that of thunder, which splits apart stones and the hardest bodies. But given the size of the bodies that are moving and the fact that the sound that is transmitted is in proportion to the magnitude that is displaced, it follows of necessity that the magnitude [scil. of the sound] that arrives here must be many times superior and that the force of its intensity be overwhelming. But it is reasonable that we do not hear anything and that our bodies evidently do not suffer anything violent, given that no sound is produced.

² λέγειν . . . τὴν αἰτίαν (vel λύειν . . . τὴν ἀπορίαν) Bonitz: λύειν . . . τὴν αἰτίαν mss.

b Porph. *In Ptol. Harm.*, pp. 80.28–81.5

εἰ μέντοι, ὥς φασιν οἱ Πυθαγόρειοι, ἡ τοῦ παντὸς ἀρμονία διὰ μέγεθος ψόφων ὑπερβάλλει ἡμῶν τὴν ἀκοήν, μείζων ἂν εἴη ὁ ὄρος τῶν ψόφων τῶν τῆς ἀκοῆς. ἔχοι γὰρ ἂν καὶ ὀξυτάτους καὶ βαρυτάτους φθόγγους ἢ τοῦ παντὸς ἀρμονία, ὦν ἡμῶν ἡ ἀκοὴ ἀπολείπεται.

On the Soul (R26)

R26 (58B.39) Arist. *An.* 1.3 407b20–24

οἱ δὲ μόνον ἐπιχειροῦσι λέγειν ποῖόν τι ἡ ψυχὴ, περὶ δὲ τοῦ δεξομένου σώματος οὐθὲν ἔτι προσδιορίζουσιν, ὥσπερ ἐνδεχόμενον κατὰ τοὺς Πυθαγορικοὺς μύθους τὴν τυχοῦσαν ψυχὴν εἰς τὸ τυχὸν ἐνδύεσθαι σῶμα.

Eudemus on the Eternal Return (R27)

R27 (> 58B.34) Simpl. *In Phys.*, p. 732.24–26, 732.30–733.1

[. . . = **PYTHS. ANON. D35**] οὐδὲν δὲ ἴσως χεῖρον καὶ τῆς Εὐδήμου ῥήσεως ἐκ τοῦ τρίτου τῶν Φυσικῶν τὰ ἐνταῦθα λεγόμενα παραφραζούσης ἀκούειν. [Frag. 88 Wehrli] “ὁ δὲ αὐτὸς χρόνος πότερον γίνεται ὥσπερ ἐνιοὶ φασιν ἢ οὐ, ἀπορήσειεν ἂν τις [. . .]. εἰ δέ τις πιστεύσειε τοῖς Πυθαγορείοις, ὥστε πάλιν τὰ αὐτὰ¹ ἀριθμῶ,² κἀγὼ μυθολογήσω τὸ ῥαβδίον ἔχων ὑμῖν

b Porphyry, *Commentary on Ptolemy's Harmonics*

But if, as the Pythagoreans say, the harmony of the whole exceeds our hearing by reason of the magnitude of its sounds, its limit [i.e. that of the harmony of the whole] would be larger than that of the sounds of hearing. For the harmony of the whole would include very high-pitched sounds and very low-pitched ones which our hearing fails [scil. to perceive].

On the Soul (R26)

R26 (58B.39) Aristotle, *On the Soul*

Some try to say only what kind of thing the soul is, and make no further definition regarding the body that will receive it, as if it were possible, according to the Pythagorean myths, for just any soul to enter into just any body.

Eudemus on the Eternal Return (R27)

R27 (> 58B.34) Eudemus in Simplicius, *Commentary on Aristotle's Physics*

[. . .] But perhaps it is not worse to listen to what Eudemus says in the third book of his *Physics* when he paraphrases what is said in this passage [i.e. Arist. *Phys.* 4.12 220b12–14]: “One might well pose the difficulty of knowing whether the time can return as identical, as some say, or not [. . .]. If one believes, following the Pythagoreans, that things will happen again as numerically identical, that I

¹ τὰ αὐτὰ F: om. E

² ἀριθμῶ om. F

καθημένοις οὕτω, καὶ τὰ ἄλλα πάντα ὁμοίως ἔξει, καὶ τὸν χρόνον εὐλογόν ἐστι τὸν αὐτὸν εἶναι. μιᾶς γὰρ καὶ τῆς αὐτῆς κινήσεως, ὁμοίως δὲ καὶ πολλῶν τῶν αὐτῶν τὸ πρότερον καὶ ὕστερον ἐν καὶ ταυτόν, καὶ ὁ τούτων δὴ ἀριθμός· πάντα ἄρα τὰ αὐτά, ὥστε καὶ ὁ χρόνος.”

*The Platonization of Older
Pythagoreanism (R28–R32)
The Appropriation of Pythagoreanism
by the Older Academy (R28)*

R28 (≠ DK) Porph. VP 53

ἡ μὲν δὴ περὶ τῶν ἀριθμῶν πραγματεία τοιαύτη τοῖς Πυθαγορείοις. καὶ διὰ ταύτην πρωτίστην οὖσαν¹ τὴν φιλοσοφίαν ταύτην συνέβη σβεσθῆναι, πρῶτον μὲν διὰ τὸ αἰνιγματῶδες, ἔπειτα διὰ τὸ καὶ τὰ γεγραμμένα δωριστι² γεγράφθαι, ἐχούσης τι καὶ ἀσαφὲς τῆς διαλέκτου, καὶ μὴν³ διὰ τοῦτο ὑπονοεῖσθαι καὶ τὰ ὑπ’ αὐτῆς ἀνιστορούμενα δόγματα ὡς νόθα καὶ παρηκουσμένα τῷ μὴ ἄντικρυς Πυθαγορικούς εἶναι τοὺς ἐκφέροντας ταῦτα. πρὸς δὲ τούτοις τὸν Πλάτωνα καὶ Ἀριστοτέλη Σπεύσιππὸν τε καὶ Ἀριστόξενον καὶ Ξενοκράτη, ὥς φασιν οἱ Πυθαγόρειοι, τὰ μὲν κάρπιμα σφετερίσασθαι διὰ βραχείας ἐπισκευῆς, τὰ δ’ ἐπιπόλαια καὶ ἐλαφρὰ καὶ ὅσα πρὸς ἀνασκευὴν⁴ καὶ

¹ αἰτίαν coni. Zeller

will speak, holding this staff as I am, to you who will be seated as you are, and that all other things will be in the same way, it is also reasonable that the time will be identical. For if there is one and the same motion, in the same way, if there are many of them that are identical, the earlier and the later will be one and the same, and so too certainly their number; hence all things will be identical, including time as well."

*The Platonization of Older
Pythagoreanism (R28–R32)
The Appropriation of Pythagoreanism
by the Older Academy (R28)*

R28 (≠ DK) Porphyry, *Life of Pythagoras*

Such is the Pythagoreans' theory with regard to numbers. And it is because of this [scil. theory], which was the principal [scil. part of their philosophy], that it came about that this philosophy became extinguished, first because of its enigmatic quality, and second because its writings were written in Doric (a dialect that is somewhat obscure), and, what is more, the doctrines that were investigated by it fell under suspicion of being spurious and misunderstood because of this, that it was not genuine Pythagoreans who divulged them. What is more, Plato and Aristotle, Speusippus and Aristoxenus and Xenocrates, as the Pythagoreans say, appropriated the fruitful parts with slight modifications, while they gathered together the superficial and

² δωριστὶ Rittershusius: δωρίδι mss.
corr. Shorey

³ μηδέν mss.,
⁴ διασκευήν mss., corr. Burkert

χλενασμὸν τοῦ διδασκαλείου ὑπὸ τῶν βασκάνως
ὕστερον συκοφαντούντων προβάλλεται συναγαγεῖν
καὶ ὡς ἴδια τῆς αἱρέσεως καταχωρίσαι.

*Characteristic Attributions of Platonic and
Academic Doctrines to Pythagoras (R29–R31)
Pythagoras, Inventor of the Terms ‘Philosophy’
and ‘Philosopher’? (R29, cf. PYTH. c D9)*

R29 (≠ DK)

a Diog. Laert. 1.12

φιλοσοφίαν δὲ πρῶτος ὠνόμασε Πυθαγόρας καὶ ἐαν-
τὸν φιλόσοφον, ἐν Σικυῶνι διαλεγόμενος Λέοντι τῷ
Σικυωνίων τυράννῳ ἢ Φλιασίων, καθά φησιν Ἑρα-
κλείδης ὁ Ποντικὸς ἐν τῇ Περὶ τῆς ἄπνου [Frag. 84
Schorn = 87 Wehrli]· μηδένα γὰρ εἶναι σοφὸν¹ ἀλλ’ ἢ
θεόν.

¹ post σοφὸν hab. mss. ἄνθρωπον, secl. Cobet

b Diog. Laert. 8.8

Σωσικράτης¹ δὲ ἐν Διαδοχαῖς φησιν [Frag. 17 Gian-
nattasio Andria] αὐτὸν ἐρωτηθέντα ὑπὸ Λέοντος τοῦ
Φλιασίων τυράννου τίς εἶη, ‘φιλόσοφον’ εἶπεῖν. καὶ
τὸν βίον ἐοικέναι πανηγύρει ὡς οὖν εἰς ταύτην οἱ μὲν
ἀγωνιούμενοι, οἱ δὲ κατ’ ἐμπόριαν, οἱ δέ γε βέλτιστοι

trivial parts, and those that were put forward later as aspersions by envious slanderers in order to refute and deride the doctrine, and they separated these out as peculiar to that sect.

*Characteristic Attributions of Platonic and
Academic Doctrines to Pythagoras (R29–R31)
Pythagoras, Inventor of the Terms ‘Philosophy’
and ‘Philosopher’? (R29, cf. PYTH. c D9)*

R29 (≠ DK)

a Diogenes Laertius

Pythagoras was the first to use the term ‘philosophy’ and to call himself a ‘philosopher,’ when he was conversing in Sicyon with Leon the tyrant of Sicyon (or of Phlius, as Heraclides of Pontus says in his *On the Woman Who Stopped Breathing*). For no one is wise except for god.¹

¹ The interpretation of the term ‘philosopher’ as ‘lover of wisdom’ as opposed to ‘sage, wise man’ derives from Plato (cf. e.g. *Symp.* 204a1–2). It is not certain that it is part of Heraclides’ original explanation.

b Diogenes Laertius

Sosicrates says in his *Successions* that when he [i.e. Pythagoras] was asked by Leon the tyrant of Phlius who he was, he said, “A philosopher,” and that life resembles a festal assembly: just as some people go there in order to compete, others in order to sell their wares, but the best

¹ σωσικράτης rec.: σωκράτης BPF

ἔρχονται θεαταί, οὕτως ἐν τῷ βίῳ οἱ μὲν ἀνδραποδώ-
δεις, ἔφη, φύονται δόξης καὶ πλεονεξίας θηραταί, οἱ
δὲ φιλόσοφοι τῆς ἀληθείας.

c Cic. *Tusc.* 5.8–9

[. . .] admiratum Leontem novitatem nominis quaesivisse,
quinam essent philosophi, et quid inter eos et reliquos
interesset; [9] Pythagoram autem respondisse [. . .] raros
esse quosdam, qui ceteris omnibus pro nihilo habitis
rerum naturam studiose intuerentur; hos se appellare
sapientiae studiosos, id est enim philosophos [. . .].

*Pythagoras and the Xenocratean
Definition of the Soul (R30)*

R30 (≠ DK) Aët. 4.2.3–4 (Stob.) [περὶ ψυχῆς]

[3] Πυθαγόρας ἀριθμὸν αὐτὸν κινεῖντα, τὸν δὲ ἀριθ-
μὸν ἀντὶ τοῦ νοῦ παραλαμβάνει.

[4] ὁμοίως δὲ καὶ Ξενοκράτης [Frag. 60 Heinze].

*Pythagoras as the Source of Plato's and Aristotle's
Theory of Emotions (R31)*

R31 (≠ DK) Gal. *Plac. Hipp. Plat.* 4.7.38

οὐ γὰρ Ἀριστοτέλης μόνον ἢ Πλάτων ἐδόξαζον οὕτως
ἀλλ' ἔτι πρόσθεν ἄλλοι τέ τινες καὶ Πυθαγόρας, ὥς

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ones go in order to be spectators, so too in life slaves, he said, are born as people who hunt for reputation or increased acquisition, and philosophers for the truth.¹

¹ There are many ancient references to this comparison, which must go back to Heraclides.

c Cicero, *Tusculan Disputations*

[...] Leon marveled at the novelty of the term and asked who the philosophers were and what the difference was between them and the rest of mankind. [9] Pythagoras answered [...] that it was a small number of men who, considering everything else worthless, studied closely the nature of things; and these called themselves lovers of wisdom, that is, philosophers [...].

Pythagoras and the Xenocratean Definition of the Soul (R30)

R30 (≠ DK) Aëtius

[3] Pythagoras: it [i.e. the soul] is a number that moves itself; he understands number instead of the mind.

[4] So too Xenocrates.

Pythagoras as the Source of Plato's and Aristotle's Theory of Emotions (R31)

R31 (≠ DK) Galen, *On the Opinions of Hippocrates and Plato*

Aristotle and Plato were not the only people who had this opinion [scil. that there is a conflict between reason and

καὶ Ποσειδώνιος φησι [Frag. T95 Edelstein-Kidd], ἐκείνου πρώτου μὲν εἶναι λέγων τὸ δόγμα, Πλάτωνα δ' ἐξεργάσασθαι καὶ κατασκευάσαι τελεώτερον αὐτό.

*The Construction of a Line of
Descent by Instruction:
Pythagoras-Archytas-Plato-Aristotle (R32)*

R32 (p. 237 Thesleff) Anon. VP, in Phot. *Bibl.* (cod. 249, 438b)

ὅτι ἔνατος ἀπὸ Πυθαγόρου διάδοχος γέγονέ φησι Πλάτων Ἀρχύτου τοῦ πρεσβυτέρου μαθητῆς γενόμενος, δέκατος δὲ Ἀριστοτέλης [= **ARCHY. P9b**].

*Aspects of Hellenistic and Later
Pythagoreanism (R33–R72)*

An Attempted Syncretic Systematization (R33)

R33 (58B.1a) Alex. Poly. *Mem. Pyth.* in Diog. Laert. 8.24–33

¹ It is difficult to date this eclectic presentation, unique in its genre, of the doctrine of Pythagoras. Alexander Polyhistor, who lived at Rome at the beginning of the first century BC, provides a *terminus ante quem*. The summary probably dates from the second century, but other, earlier dates (even the end of the fourth century) have been proposed.

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the emotions], but there were others even earlier, and in particular Pythagoras, as Posidonius states as well, saying that he was the first to assert this thesis and that Plato elaborated it and rendered it more complete.

The Construction of a Line of Descent by Instruction: Pythagoras-Archytas-Plato-Aristotle (R32)

R32 (\neq DK) Anonymous, *Life of Pythagoras*, in Photius, *Library*

He [i.e. the author of the anonymous *Life*] says that the ninth successor of Pythagoras was Plato, who had been the disciple of the older Archytas, and that the tenth was Aristotle.

Aspects of Hellenistic and later Pythagoreanism (R33–R72)¹

¹ Given the considerable uncertainty of dating the Pythagorean texts, it is not impossible that some of the texts collected in this section antedate the Hellenistic period (for example, the interpretation of the Pythagorean *symbola*, **R34**). Moreover, it is certain or probable that some extracts belong to the corpus of Pseudo-Pythagorica, to which we have dedicated a specific rubric (**R45–R66**). The cross-references are indicated.

An Attempted Syncretic Systematization (R33)¹

R33 (58.B1a) *Pythagorean Memoirs* quoted by Alexander Polyhistor in Diogenes Laertius

[24] φησὶ δὲ ὁ Ἀλέξανδρος ἐν ταῖς τῶν Φιλοσόφων διαδοχαῖς καὶ ταῦτα εὐρηκέναι ἐν Πυθαγορικοῖς ὑπομνήμασιν.

[25] ἀρχὴν μὲν τῶν ἀπάντων μονάδα· ἐκ δὲ τῆς μονάδος ἀόριστον δυνάδα ὥς ἂν ὕλην τῇ μονάδι αἰτίῳ ὄντι¹ ὑποστῆναι· ἐκ δὲ τῆς μονάδος καὶ τῆς ἀόριστου δυνάδος τοὺς ἀριθμούς· ἐκ δὲ τῶν ἀριθμῶν τὰ σημεῖα· ἐκ δὲ τούτων τὰς γραμμάς, ἐξ ὧν τὰ ἐπίπεδα σχήματα· ἐκ δὲ τῶν ἐπιπέδων τὰ στερεὰ σχήματα· ἐκ δὲ τούτων τὰ αἰσθητὰ σώματα, ὧν καὶ τὰ στοιχεῖα εἶναι τέταρα, πῦρ, ὕδωρ, γῆν, ἀέρα· ἃ μεταβάλλειν καὶ τρέπεσθαι δι' ὅλων, καὶ γίνεσθαι ἐξ αὐτῶν κόσμον ἔμψυχον, νοερόν, σφαιροειδῆ, μέσην περιέχοντα τὴν γῆν καὶ αὐτὴν σφαιροειδῆ καὶ περιρικουμένην. εἶναι δὲ καὶ ἀντίποδας καὶ τὰ ἡμῖν κάτω ἐκείνους ἄνω.

[26] ἰσόμοιρά τε εἶναι ἐν τῷ κόσμῳ φῶς καὶ σκότος, καὶ θερμὸν καὶ ψυχρόν, καὶ ξηρὸν καὶ ὑγρόν· ὧν κατ' ἐπικράτειαν θερμοῦ μὲν θέρος γίνεσθαι, ψυχροῦ δὲ χειμῶνα· ἐὰν δὲ ἰσομοιρῇ, τὰ κάλλιστα εἶναι τοῦ ἔτους, οὗ τὸ μὲν θάλλον ἔαρ ὑγιεινόν, τὸ δὲ φθίνον φθινόπωρον νοσερόν. ἀλλὰ καὶ τῆς ἡμέρας θάλλειν μὲν τὴν ἑω, φθίνειν δὲ τὴν ἑσπέραν· ὅθεν καὶ νοσερώτερον εἶναι. τὸν τε περὶ τὴν γῆν αἰθέρα² ἄσειστον³ καὶ νοσερόν καὶ τὰ ἐν αὐτῷ πάντα θνητά· τὸν δὲ ἀνωτάτω ἀεικίνητόν τε εἶναι καὶ καθαρὸν καὶ ὑγιᾶ καὶ πάντα τὰ ἐν αὐτῷ ἀθάνατα καὶ διὰ τοῦτο θεία.

[24] This is what Alexander in his *Successions of the Philosophers* says that he also found in *Pythagorean Memoirs*.

[25] The principle of all things is the monad [or: the unit]; from the monad has come the unlimited dyad [i.e. duality], as so to speak a matter for the monad, which is the cause; and from the monad and the unlimited dyad have come the numbers; from the numbers, the points; from these, the lines; from which, the plane figures; from the planes, the solid figures; from these, the perceptible bodies, of which there are four elements, fire, water, earth, and air: these change and are transformed in totality. And from these there has come to be [scil. the vault of] the world, which is animated, intelligent, spherical, and surrounds the earth located in the middle, which is itself also spherical and inhabited all around. There are antipodes, and what is down for us is up for them.

[26] There is the same portion of light and darkness in the world, of heat and cold, and of dry and moist; when, among these, heat dominates, there is summer; when cold, winter; when dry, spring; when moist, autumn. If they are in equilibrium, this is the finest part of the year, of which the flowering, in the spring, is healthy while the declining, in the autumn, is unhealthy. So too, in the day, there is flowering, in the morning, and declining, in the evening; which is why this is also more unhealthy. The air around the earth is stagnant and unhealthy and everything that is in it is mortal; but the one that is higher is always in motion, pure, and healthy, and everything that is in it is immortal and for this reason divine.

¹ οὐσῆ Reiske
στον <καὶ θολερὸν> Reiske

² αἰθέρα BP¹ F: ἀέρα P⁴

³ ἄσει-

[27] ἡλιόν τε καὶ σελήνην καὶ τοὺς ἄλλους ἀστέρας εἶναι θεούς· ἐπικρατεῖ γὰρ τὸ θερμὸν ἐν αὐτοῖς, ὅπερ ἐστὶ ζωῆς αἴτιον. τὴν τε σελήνην λάμπεσθαι ὑφ' ἡλίου. καὶ ἀνθρώπων εἶναι πρὸς θεοὺς συγγένειαν, κατὰ τὸ μετέχειν ἀνθρωπον θερμοῦ· διὸ καὶ προνοεῖσθαι τὸν θεὸν ἡμῶν. εἰμαρμένην τε τῶν ὅλων καὶ κατὰ μέρος αἰτίαν εἶναι τῆς διοικήσεως. διήκειν τε ἀπὸ τοῦ ἡλίου ἀκτῖνα διὰ τοῦ αἰθέρος τοῦ τε ψυχροῦ καὶ παχέος. καλοῦσι δὲ τὸν μὲν ἀέρα ψυχρὸν αἰθέρα, τὴν δὲ θάλασσαν καὶ τὸ ὑγρὸν παχὺν¹ αἰθέρα. ταύτην δὲ τὴν ἀκτῖνα καὶ εἰς τὰ βένθη² δύεσθαι καὶ διὰ τοῦτο ζωοποιεῖν πάντα.

[28] καὶ ζῆν μὲν πάνθ' ὅσα μετέχει τοῦ θερμοῦ· διὸ καὶ τὰ φυτὰ ζῶα εἶναι· ψυχὴν μέντοι μὴ ἔχειν πάντα. εἶναι δὲ τὴν ψυχὴν ἀπόσπασμα αἰθέρος καὶ τοῦ θερμοῦ καὶ τοῦ ψυχροῦ τῷ <τε>³ συμμετέχειν ψυχροῦ αἰθέρος διαφέρειν ψυχὴν ζωῆς· ἀθάνατόν τε εἶναι αὐτήν, ἐπειδήπερ καὶ τὸ ἀφ' οὗπερ ἀπέσπασται ἀθάνατόν ἐστι. τὰ δὲ ζῶα γεννᾶσθαι ἐξ ἀλλήλων ἀπὸ σπερμάτων, τὴν δὲ ἐκ γῆς γενεσὶν ἀδύνατον ὑφίστασθαι. τὸ δὲ σπέρμα εἶναι σταγόνα ἐγκεφάλου περιέχουσαν ἐν ἑαυτῇ ἀτμὸν θερμόν· ταύτην δὲ προσφερομένην τῇ μήτρᾳ ἀπὸ μὲν τοῦ ἐγκεφάλου ἰχώρα καὶ ὑγρὸν καὶ αἷμα προίεσθαι, ἐξ ὧν σάρκας τε καὶ νεῦρα καὶ ὅστ'α καὶ τρίχας καὶ τὸ ὅλον συνίστασθαι⁴ σώμα· ἀπὸ δὲ τοῦ ἀτμοῦ ψυχὴν καὶ αἴσθησιν.

[29] μορφοῦσθαι δὲ τὸ μὲν πρῶτον παγὲν ἐν ἡμέραις τεσσαράκοντα, κατὰ δὲ τοὺς τῆς ἀρμονίας λόγους ἐν

[27] The sun, the moon, and the other heavenly bodies are gods; for in them heat dominates, which is the cause of life; and the moon is illuminated by the sun. And there is a consanguinity between humans and gods, because humans have a share in heat: and that is why god exercises his providence for us. Fate is the cause of the administration both of the whole and of its parts. The ray of the sun penetrates through the cold and dense aether. And they call the air 'cold aether,' the sea and the moist 'thick aether.' This ray goes down into the depths and that is why it gives life to everything.

[28] All those things are alive that have a share of heat; and that is why plants too are living beings. But not all things possess a soul. The soul is a piece detached from the aether, from both the warm aether and the cold one, and since it has a share in the cold aether the soul differs from life; and it is immortal, since what it has been detached from is immortal too. Animals are generated by one another from semen, and it is impossible for generation to come about from the earth. The semen is a drop of the brain which surrounds within itself a hot vapor; when it is conveyed to the womb it emits lymph, fluid, and blood that come from the brain; from these are formed flesh, muscles, bones, hair, and the whole body; and from the vapor, the soul and sensation.

[29] After it has first congealed, the embryo acquires its form in forty days, and, according to harmonic ratios, the

¹ παχὺν BP¹: ψυχρὸν F, γρ P⁴

³ τῷ <τε> Diels: τῷ P: τὸ BF

στασθαί F

² βένη P¹F: βάθη BP⁴

⁴ συνίστασθαι BP: ὑφί-

ἑπτὰ ἢ ἑννέα ἢ δέκα τὸ πλείστον μησὶ τελειωθὲν ἀπο-
 κυτσκεσθαι τὸ βρέφος· ἔχειν δὲ ἐν αὐτῷ πάντας τοὺς
 λόγους τῆς ζωῆς, ὧν εἰρομένων συνέχεσθαι κατὰ
 τοὺς τῆς ἁρμονίας λόγους, ἐκάστων ἐν τεταγμένοις
 καιροῖς ἐπιγινομένων. τήν τε αἰσθήσιν κοινῶς καὶ
 κατ' εἶδος τὴν ὄρασιν¹ ἀτμόν τινα ἄγαν εἶναι² θερμόν.
 καὶ³ διὰ τοῦτον⁴ λέγεται⁵ δι' αἶρος ὁρᾶν καὶ δι' ὕδατος·
 ἀντερείδεσθαι γὰρ τὸ θερμόν ἀπὸ⁶ τοῦ ψυχροῦ. ἐπεὶ
 τοι εἰ ψυχρὸς ἦν ὁ ἐν τοῖς ὄμμασιν ἀτμός, διεισθήκει
 ἂν⁷ πρὸς τὸν ὅμοιον αἶρα· νῦν δὲ⁸ ἔστιν ἐν οἷς ἡλίου
 πύλας⁹ καλεῖ τοὺς ὀφθαλμούς. τὰ δ' αὐτὰ καὶ περὶ τῆς
 ἀκοῆς καὶ τῶν λοιπῶν αἰσθήσεων δογματίζει.⁹

[30] τὴν δὲ ἀνθρώπου ψυχὴν διηρησθαι¹⁰ τριχῇ, εἷς τε
 νοῦν καὶ φρένας¹¹ καὶ θυμόν. νοῦν μὲν οὖν καὶ θυμόν
 εἶναι καὶ ἐν τοῖς ἄλλοις ζώοις, φρένας δὲ μόνον ἐν
 ἀνθρώπῳ. εἶναι δὲ τὴν ἀρχὴν τῆς ψυχῆς ἀπὸ καρδίας
 μέχρις ἐγκεφάλου· καὶ τὸ μὲν ἐν τῇ καρδίᾳ μέρος
 αὐτῆς ὑπάρχειν θυμόν, φρένας δὲ καὶ νοῦν τὰ ἐν τῷ
 ἐγκεφάλῳ· σταγόνας δὲ εἶναι¹² ἀπὸ¹³ τούτων τὰς αἰ-
 σθήσεις. καὶ τὸ μὲν φρόνιμον ἀθάνατον, τὰ δὲ λοιπὰ
 θνητά. τρέφεσθαι τε τὴν ψυχὴν ἀπὸ τοῦ αἵματος·
 τοὺς δὲ λόγους ψυχῆς ἀνέμους¹⁴ εἶναι. ἀόρατόν τ' εἶ-
 ναι αὐτὴν καὶ τοὺς λόγους, ἐπεὶ καὶ ὁ αἰθὴρ ἀόρατος.

¹ ὄρασιν BP¹: κρᾶσιν F ² ἄγαν εἶναι B: εἶναι P: εἶναι
 ἄγαν F ³ καὶ om. F ⁴ τοῦτον BP¹: τοῦτο F
⁵ λέγεται mss.: λέγει καὶ Bywater: λέγει Reiske

completed child is born in seven, nine, or most often ten [scil. lunar] months. It has within itself all the ratios suitable for life, and these form a series, maintaining it according to harmonic ratios, every feature being produced at the established moment. Sensation in general, and in particular vision, is a certain very hot vapor. And it is said that this is why one sees through air and through water. For heat is repelled far away from the cold, since if the vapor in the eyes were cold, it would differ (?) with regard to the air, which would be similar to it. But as it is, there are passages in which he calls the eyes **'the gates of the sun.'** He teaches the same doctrine also about hearing and the other sensations.

[30] The soul of the human being is divided into three parts: discrimination (*nous*), intelligence (*phrenes*), and the vital spirit (*thumos*). Discrimination and the vital spirit are also found in the other animals, intelligence only in the human being. The principle of the soul extends from the heart to the brain. And the part of it that is located in the heart is the vital spirit; intelligence and discrimination are those located in the brain. Sensations are drops coming from these. The intelligent part is immortal, the others mortal. The soul is nourished by blood. The 'reasons' (*logoi*) of the soul are winds. It is invisible, as are the 'reasons,' since the aether is invisible too.

⁶ ἀπὸ rec.: ἐπὶ mss. ⁷ ἄν <οὐδέν> Diels ⁸ lac. post
 δὲ ind. Reiske ⁹ δογματίζει rec.: -ζειν mss. ¹⁰ διη-
 ρῆσθαι BP: διαί- F: διαίρει- rec. ¹¹ φρένα FP⁴ ¹² εἰ-
 ναι rec.: εἰδέναι BPF: ἰέναι Kuhn ¹³ ἀπὸ B: ὑπὸ PF
¹⁴ ἀναίμους Janda

[31] δεσμά τε εἶναι τῆς ψυχῆς τὰς φλέβας καὶ τὰς ἀρτηρίας καὶ τὰ νεύρα· ὅταν δὲ ἰσχύῃ καὶ καθ' αὐτὴν γενομένη ἡρεμῇ, δεσμὰ¹ γίνεσθαι αὐτῆς τοὺς λόγους καὶ τὰ ἔργα. ἐκριφθεῖσάν² τε³ αὐτὴν ἐπὶ γῆς πλάζεσθαι ἐν τῷ ἀέρι ὁμοίαν τῷ σώματι. τὸν δὲ Ἑρμῆν ταμίαν εἶναι τῶν ψυχῶν καὶ διὰ τοῦτο πομπέα λέγεσθαι καὶ πυλαῖον⁴ καὶ χθόνιον, ἐπειδὴ περ οὗτος καὶ εἰσπέμπει ἀπὸ τῶν σωμάτων τὰς ψυχὰς ἀπὸ τε γῆς καὶ ἐκ θαλάττης· καὶ ἄγεσθαι τὰς μὲν⁵ καθαρὰς ἐπὶ τὸν ὕψιστον,⁶ τὰς δὲ ἀκαθάρτους μήτε ἐκείναις πελάζειν μήτε ἀλλήλαις, δεῖσθαι δ' ἐν ἀρρήκτοις δεσμοῖς ὑπὸ Ἑρινύων.

[32] εἶναί τε πάντα τὸν ἀέρα ψυχῶν ἔμπλεων· καὶ τούτους τοὺς⁷ δαίμονάς τε καὶ ἥρωας νομίζεσθαι·⁸ καὶ ὑπὸ τούτων πέμπεσθαι ἀνθρώποις τοὺς τ' ὀνείρους καὶ τὰ σημεῖα νόσους τε,⁹ καὶ οὐ μόνον ἀνθρώποις, ἀλλὰ καὶ προβάτοις καὶ τοῖς ἄλλοις κτήνεσιν· εἰς τε τούτους γίνεσθαι τοὺς τε καθαρμοὺς καὶ ἀποτροπιασμοὺς μαντικὴν τε πᾶσαν καὶ κληδόνας καὶ τὰ ὅμοια. μέγιστον δὲ φησιν τῶν¹⁰ ἐν ἀνθρώποις εἶναι τὴν ψυχὴν πείσαι ἐπὶ τὸ ἀγαθὸν ἢ ἐπὶ τὸ κακόν.¹¹ εὐδαιμονεῖν τε ἀνθρώπους ὅταν ἀγαθὴ ψυχὴ προσγένηται, μηδέποτε δὲ ἡρεμεῖν μηδὲ τὸν αὐτὸν¹² ῥόον¹³ κρατεῖν.¹⁴

¹ δειγμα Wiersma ² ἐκριφθεῖσαν P: κρυφθεῖσαν B: ἐξελθοῦσαν F ³ τε BP: δὲ F ⁴ ἐμπολαῖον Lobeck
⁵ τὰς μὲν Cobet: μὲν τὰς BP: τὰς F ⁶ ὕψιστον <τόπον> Cobet: ὕψιστον <κύκλον> vel τὸ ὕψιστον Rohde

[31] What binds the soul are the veins, arteries, and tendons; but when it is strong and, having become independent, is at rest, it is its 'reasons' and activities that bind it. But when it is expelled onto the earth, it wanders in the air, similar to the body. Hermes is the administrator of the souls and that is why he is called 'escorter,' 'guardian of the gates,' and 'subterranean' (*khthonios*), since it is he who sends the souls away from their bodies, both from the earth and out of the sea. The pure ones are led into the highest region, while the impure ones approach neither them nor each other, but are bound in unbreakable bonds by the Erinyes.

[32] All the air is filled with souls, and these are called demons (*daimones*) and heroes. And it is by these that dreams and signs of sickness and health are sent to humans, and not only to humans, but also to sheep and other domestic animals. And it is to them that purifications, expiations, all forms of divination, incantations, and similar practices are directed. He says that the most important thing for human beings is the persuasion of the soul toward good or toward evil. Humans are happy when a good soul falls to their lot, but they can never be at rest nor master the same course (?).

⁷ τούς om. F ⁸ ὀνομάζεσθαι Cobet ⁹ νόσους τε PF: νόσον τε B: νόσον τε καὶ ὑγείας rec.: νόσον τε <καὶ θανάτου> von der Mühl
¹⁰ τῶν PF: τὸν B: αὐτῶν (scil. τῶν δαιμόνων) Wiersma
¹¹ ἢ ἐπὶ τὸ κακόν secl. Reiske ¹² post αὐτὸν lac. ind. Cobet: <ρέυματος> Wellmann ¹³ ῥόον BPF: νόον Kuhn
¹⁴ κρατεῖν <αὐτοὺς ὅταν κακὴ ψυχὴ προσγένηται> Gigante

[33] ὄρκιον τε εἶναι τὸ δίκαιον καὶ διὰ τοῦτο Δία ὄρκιον λέγεσθαι. τὴν τε ἀρετὴν ἀρμονίαν εἶναι καὶ τὴν ὑγίειαν καὶ τὸ ἀγαθὸν ἅπαν καὶ τὸν θεόν· διὸ καὶ καθ' ἀρμονίαν συνεστάναι τὰ ὅλα. φιλίαν τε εἶναι ἐναρμόνιον ἰσότητα. τιμὰς θεοῖς δεῖν νομίζειν καὶ ἥρωσιν μὴ τὰς ἴσας, ἀλλὰ θεοῖς μὲν αἰεὶ μετ' εὐφημίας λευχεμονοῦντας καὶ ἀγνεύοντας, ἥρωσι δὲ ἀπὸ μέσου ἡμέρας. τὴν δὲ ἀγνείαν εἶναι διὰ καθαρμῶν καὶ λουτρῶν καὶ περιρραντηρίων καὶ διὰ τοῦ αὐτὸν καθαρεύειν ἀπὸ τε κήδους καὶ λεχοῦς¹ καὶ μιάσματος παντὸς καὶ ἀπέχεσθαι βρωτῶν θνησειδίων τε κρεῶν καὶ τριγλῶν καὶ μελανούρων καὶ ὤων καὶ τῶν ὠτοκόων² ζώων καὶ κνάμων καὶ τῶν ἄλλων ὧν παρακελεύονται καὶ οἱ τὰς τελετὰς ἐν τοῖς ἱεροῖς ἐπιτελοῦντες [. . . = **PYTH. c D22**].

¹ λέχους mss., corr. Cobet
om. F: ἡ ζώων secl. Diels

² post ὠτοκόων hab. ἡ BP^{ac},

Pythagoras as Moralizer (R34–R37)
The Interpretation of the Acousmatic
Formulas (R34)

R34 (< 58C.6) Porph. VP 42

‘ζυγὸν μὴ ὑπερβαίνειν,’ τουτέστι μὴ πλεονεκτεῖν, ‘μὴ τὸ πῦρ τῇ μαχαίρᾳ σκαλεύειν,’ ὅπερ ἦν μὴ τὸν ἀνοιδόοντα καὶ ὀργιζόμενον κινεῖν λόγοις παρατεθηγμέ-

[33] What is just is like an oath (*horkion*), and for this reason Zeus is called 'of the oath' (*horkios*). Virtue is a harmony, as are health, all that is good, and god. And that is why the whole (*ta hola*) is constituted in conformity with harmony. Friendship is an equality in conformity with harmony. We must think that the honors rendered to gods and to heroes are not identical: for the gods these are performed always, avoiding any blasphemous utterance, dressed in white and purified, but for the heroes it is only starting at midday. Purity is obtained by purifications, ablutions, lustrations, and by remaining uncontaminated by death, birth, and all pollution, and by abstaining from the meat and flesh of animals that have died, red mullets, gray mullets, eggs, oviparous animals, beans, and the other foods that are forbidden by those too who perform initiations in the temples [. . .].

Pythagoras as Moralizer (R34–R37)
The Interpretation of the Acousmatic
Formulas (R34)¹

¹ Cf. PYTH. c D16–D19

R34 (< 58C.6) Porphyry, *Life of Pythagoras*

“Do not step across a pair of scales,” i.e. “do not desire more”; “do not stir up a fire with a knife,” which means “do not stir up with cutting words someone who is swollen

νοῖς, 'στέφανόν τε μὴ τίλλειν,' τουτέστι τοὺς νόμους
μὴ λυμαίνεσθαι· στέφανοι γὰρ πόλεων οὗτοι. [. . .] 'μὴ
καρδίαν ἐσθίειν,' οἷον μὴ λυπεῖν ἑαυτὸν ἀνίαῖς, 'μὴδ'
ἐπὶ χοίνικος καθέζεσθαι,' οἷον μὴ ἀργὸν ζῆν [. . .].

*Moral Education According to
The Golden Verses (R35)*

R35 (≠ DK) *Carm. Aur.*

a vv. 40–42

μὴ δ' ὕπνον μαλακοῖσιν ἐπ' ὄμμασι
προσδέξασθαι,
πρὶν τῶν ἡμερινῶν ἔργων τρὶς ἕκαστον ἐπελθεῖν·
“πῇ παρέβην; τί δ' ἔρεξα; τί μοι δέον οὐκ
ἐτελέσθη;”

b vv. 45–49

ταῦτα πόνει, ταῦτ' ἐκμελέτα, τούτων χρὴ ἐρᾶν σε
ταῦτά σε τῆς θείης Ἀρετῆς εἰς ἵχνια θήσει
ναὶ μὰ τὸν ἀμετέρα ψυχᾷ παραδόντα τετρακτύν,
παγὰν ἀενάου φύσεως. ἀλλ' ἔρχευ ἐπ' ἔργον
θεοῖσιν ἐπευξάμενος τελέσαι.

c vv. 61–64, 70–71

Ζεῦ πάτερ, ἦ πολλῶν κε¹ κακῶν λύσειας ἅπαντας,
εἰ πᾶσιν δείξαις, οἷω τῷ δαίμονι χρώνται.

with anger”; “do not pluck apart a garland,” i.e. “do not destroy the laws,” for they are the garlands of cities. [. . .] “Do not eat the heart,” for “do not afflict yourself by grief.” “Do not sit on a loaf of bread,” for “do not live idly” [. . .].

*Moral Education According to
The Golden Verses (R35)*

R35 (\neq DK) *The Golden Verses*

a [Examination of one’s conscience:]

Do not welcome sleep into your languid eyes
Before you have gone three times through each of
your deeds that day:
“Where did I go astray? What did I accomplish?
What duty did I neglect?”

b [Effort:]

Labor at these things [scil. precepts], practice them,
you must love them:
These will set you in the footsteps of divine Virtue,
Yes indeed, by him who transmitted to our soul the
tetraktys,
Fountain of ever-flowing nature. But get to work,
Praying to the gods for their fulfillment.

c [The promise of immortality:]

Father Zeus, you would certainly free all men from
their many evils,

¹ $\kappa\epsilon$ ex vers. Arab. edd.: $\gamma\epsilon$ Diehl: $\tau\epsilon$ mss. plerique

ἀλλὰ σὺ θάρσει, ἐπεὶ θεῖον γένος ἐστὶ βροτοῖσιν,
οἷς ἱερὰ προφέρουσα φύσις δείκνυσιν ἕκαστα.

[. . .]

ἦν δ' ἀπολείψας σῶμα ἐς αἰθέρ' ἐλεύθερον ἔλθης,
ἔσσεαι ἀθάνατος, θεὸς ἄμβροτος, οὐκέτι θνητός.

Pythagorean Maxims (R36)

R36 (≠DK) Stob. 3.1.30–44

[30] ἀνανεούσθω σοι ὁ περὶ τῶν ἀγαθῶν λόγος καθ'
ἡμέραν μᾶλλον ἢ τὰ σιτία.

[31] ἄγρυπνος ἔσο κατὰ νοῦν· συγγενὴς γὰρ τοῦ ἀλη-
θινοῦ θανάτου ὁ περὶ τοῦτον ὕπνος.

[32] ἂ μὴ δεῖ ποιεῖν, μηδὲ ὑπονοοῦ ποιεῖν.

[33] ζητεῖν δεῖ καὶ ἄνδρα καὶ τέκνα καὶ φίλους τοὺς
μετὰ τὴν ἀπαλλαγὴν τοῦ βίου παραμένοντας.

[34] ζῆν κρεῖττόν ἐστιν ἐπὶ στιβάδος κατακείμενον
καὶ θαρρεῖν ἢ ταραττεσθαι χρυσὴν ἔχοντα κλίνην.

[35] ἰσχύειν τῇ ψυχῇ αἰροῦ μᾶλλον ἢ τῷ σώματι.

¹ These fifteen maxims, like many others cited by Stobaeus in different chapters of his *Anthology*, are also found in the collection of 123 Pythagorean maxims arranged alphabetically that is preserved in a manuscript in Vienna (see H. Chadwick, *The Sentences of Sextus: A Contribution to the History of Early Christian*

PYTHAGOREAN RECEPTION

If you showed them all what kind of divinity they possess.

But you, be courageous, since their race is divine, those mortals

To whom nature bestows and displays each of the holy things.

[. . .]

If you leave the body and come to the free aether, You will be deathless, an undying god, no longer mortal. [cf. **EMP. D4.4**]

Pythagorean Maxims (R36)

R36 (\neq DK) Fifteen Pythagorean maxims in Stobaeus, *Anthology* ("On virtue")¹

[30] Renew your doctrine about good things every day, rather than your food.

[31] May you remain awake in your intelligence. For its sleep is akin to a real death.

[32] What you should not do, do not even think of doing it.

[33] One must look for a man, children, and friends who remain after the end of life.

[34] It is better to live sleeping on straw and fearing nothing, than to be troubled and possess a golden bed.

[35] Choose to be strong in your soul rather than in your body.

Ethics, Cambridge, 1959, pp. 84–94). Some of them are also found in the collection of the 411 maxims of Sextus, in which Pythagoreanism and Christianity come together (ed. Chadwick, pp. 12–61; cf. pp. 140–41).

[36] πέπεισο μὴ εἶναι σὸν κτῆμα, ὅπερ μὴ ἐντὸς διανοίας ἔχεις.

[37] πρᾶττε μεγάλα μὴ ὑπισχνούμενος μεγάλα.

[38] τέκνα μάθε τίκτειν οὐ τὰ γηροβοσκήσονται τὸ σῶμα, τὰ δὲ τὴν ψυχὴν θρέψοντα τῇ αἰδίῳ τροφῇ.

[39] τὰ ἐπίποντα τῶν ἡδέων μᾶλλον ἡγοῦ συντελεῖν εἰς ἀρετήν.

[40] χαλεπὸν πολλὰς ὁδοὺς ἅμα τοῦ βίου βαδίζειν.

[41] ψυχῆς πᾶν πάθος εἰς σωτηρίαν αὐτῆς πολεμιώτατον.

[42] ὦν ἡ τύχη κυρία καὶ δοῦναι καὶ ἀφελέσθαι, οὐ δεήσῃ οὐδενός.

[43] ὦν τοῦ σώματος ἀπαλλαγεῖς οὐ δεήσῃ, ἐκείνων καταφρόνει πάντων καὶ ὦν ἀπαλλαγεῖς δεήσῃ, πρὸς ταῦτά σοι ἀσκουμένῳ τοὺς θεοὺς παρακάλει γίνεσθαι συλλήπτορας.

[44] ὦν ἔνεκα ζῆν ἐθέλεις, τούτων χάριν καὶ ἀποθανεῖν μὴ κατόκνει.

*Speeches to the Crotonians Attributed to
Pythagoras (R37)*

R37 (≠DK) Iambl. VP 37–42

[37] περιχυθέντων δὲ τῶν νεανίσκων παραδέδοται λόγους τινὰς διαλεχθῆναι πρὸς αὐτοὺς, ἐξ ὧν εἰς τὴν σπουδὴν παρεκάλει τὴν περὶ τοὺς πρεσβυτέρους, ἀποφαίνων ἔν τε τῷ κόσμῳ καὶ τῷ βίῳ καὶ ταῖς

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- [36] Be convinced that what you do not have within your thought is not a possession of yours.
- [37] Perform great actions without promising great things.
- [38] Learn to create children who will not take care of the body when it is old but who will nourish the soul by an eternal sustenance.
- [39] Think that what requires effort contributes more to virtue than what provides pleasure.
- [40] It is difficult to follow many paths at once in life.
- [41] Every affection (*pathos*) of the soul is most inimical to its salvation.
- [42] You will need nothing of what fortune has the power to give and to take away.
- [43] Despise all the things you will not need once you have left the body; and train yourself in those you will need once you have left it, praying the gods to help you.
- [44] Do not hesitate to die too for the things for which you wish to live.

Speeches to the Crotonians Attributed to Pythagoras (R37)

R37 (≠ DK) Iamblichus, *Life of Pythagoras*

- [37] It is reported that he [i.e. Pythagoras] delivered certain speeches to crowds of youths in which he exhorted them to take care of their elders, showing that, in the world just as in life or in cities or nature, what precedes is

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πόλεσι καὶ τῇ φύσει μᾶλλον τιμώμενον τὸ προηγούμενον ἢ τὸ τῷ χρόνῳ ἐπόμενον [. . .]. [41] ἐφεξῆς δὲ ἔλεγε περὶ σωφροσύνης, φάσκων τὴν τῶν νεανίσκων ἡλικίαν πείραν τῆς φύσεως λαμβάνειν, καθ' ὃν καιρὸν ἀκμαζούσας ἔχουσι τὰς ἐπιθυμίας [. . .]. [42] παρ-εκάλει δὲ τοὺς νεανίσκους καὶ πρὸς τὴν παιδείαν, ἐνθυμείσθαι κελεύων ὡς ἄτοπον ἂν εἴη πάντων μὲν σπουδαιότατον κρίνειν τὴν διάνοιαν καὶ ταύτῃ βουλεύεσθαι περὶ τῶν ἄλλων, εἰς δὲ τὴν ἄσκησιν τὴν ταύτης μηδένα χρόνον μηδὲ πόνον ἀνηλωκέναι [. . .].

Recommendations Attributed to Pythagoreans

See **R63–R66**

Representations of Pythagoreans in Middle Comedy

See **DRAM. T35–T39**

Some Testimonia about Pythagoras’ Presence in Rome (R38–R44) Pythagoras’ Statue in Rome at the Beginning of the 3rd Century BC (R38)

R38 (≠DK) Plin. *Nat. hist.* 34.12.26

invenio et Pythagorae et Alcibiadi in cornibus Comitii
positas, cum bello Samniti Apollo Pythius iussisset for-

PYTHAGOREAN RECEPTION

more honored than what follows in time [. . .]. [41] He then spoke about self-control, saying that adolescence provides a good indication of people's nature, since at this age their passions are at a maximum [. . .]. [42] He also exhorted the youths to study, telling them to consider that it would be absurd to judge that thought is the most serious thing of all and to deliberate by its means about everything else, and yet not to dedicate any time or effort to training oneself in it [. . .].¹

¹ In what follows, Iamblichus quotes other speeches addressed to different groups: men engaged in politics (VP 45–50), children (VP 51–53), women (VP 54–57).

Recommendations Attributed to Pythagoreans

See **R63–R66**

Representations of Pythagoreans in Middle Comedy

See **DRAM. T35–T39**

Some Testimonia about Pythagoras' Presence in Rome (R38–R44) Pythagoras' Statue in Rome at the Beginning of the 3rd Century BC (R38)

R38 (≠ DK) Pliny, *Natural History*

I also find that [scil. statues] of Pythagoras and Alcibiades were placed in the corners of the Comitium, when during

tissimo Graiae gentis et alteri sapientissimo simulacra celebri loco dicari. eae stetero, donec Sulla dictator ibi curiam faceret. mirumque est, illos patres Socrati cunctis ab eodem deo sapientia praelato Pythagoran praetulisse [. . .].

*The Legend of Numa as a Pupil of
Pythagoras (R39–R41)*

R39 (≠DK) Cic. *Tusc.* 4.1.2–3

Pythagorae autem doctrina cum longe lateque flueret, permanavisse mihi videtur in hanc civitatem, idque cum coniectura probabile est, tum quibusdam etiam vestigiis indicatur. quis enim est qui putet, cum floreret in Italia Graecia potentissimis et maximis urbibus, ea quae magna dicta est, in iisque primum ipsius Pythagorae, deinde postea Pythagoreorum tantum nomen esset, nostrorum hominum ad eorum doctissimas voces aures clausas fuisse? quin etiam arbitror propter Pythagoreorum admirationem Numam quoque regem Pythagoreum a posterioribus existimatum. nam cum Pythagorae disciplinam et instituta cognoscerent regisque eius aequitatem et sapientiam a maioribus suis accepissent, aetates autem et tempora ignorarent propter vetustatem, eum, qui sapientia excelleret, Pythagorae auditorem crediderunt fuisse.

PYTHAGOREAN RECEPTION

the Samnite War [i.e. between 343 and 290 BC, probably ca. 300] Pythian Apollo ordered that one effigy of the bravest of the Greeks and another of the wisest be dedicated in a public place; and they remained there until Sulla the dictator had the Senate built in that place [i.e. in 80 BC]. It is surprising that those senators preferred Pythagoras to Socrates, who on account of his wisdom had been preferred by that same god [i.e. Apollo] to all other men [. . .].

The Legend of Numa as a Pupil of Pythagoras (R39–R41)

R39 (≠ DK) Cicero, *Tusculan Disputations*

Given that the doctrine of Pythagoras was disseminated far and wide, it seems likely to me that it reached this city of ours; and this is not only probable as a conjecture, but it is also indicated by various traces. For who could suppose that—although what was called Magna Graecia flourished in Italy with such large and powerful cities and in these first the name of Pythagoras, and then that of the Pythagoreans, were held in such high regard—the ears of our people remained closed to their very learned voices? On the contrary, I think that it is because of their admiration for the Pythagoreans that posterity thought that King Numa too was a Pythagorean. For since they knew of Pythagoras' doctrine and institutions and had heard from their ancestors of this king's justice and wisdom, but were ignorant of the ages and dates because of their antiquity, they believed that that man, who was distinguished for his wisdom, had been a student of Pythagoras.

R40 (≠ DK) Liv. 40.29

[8] adicit Antias Valerius Pythagoricos fuisse, vulgatae opiniononi, qua creditur Pythagorae auditorem fuisse Numam, mendacio probabili adcommodata fide [. . .]. [14] libri in comitio [. . .] in conspectu populi cremati sunt.

R41 (≠DK) Plut. *Numa***a** 1.3–4

λεγομένου δὲ οὖν ὡς Νομάς γένοιτο Πυθαγόρου συνήθης, οἱ μὲν ὅλως ἀξιοῦσι μηδὲν Ἑλληνικῆς παιδείσεως Νομᾷ μετεῖναι, καθάπερ ἡ φύσει δυνατὸν¹ καὶ αὐτάρκη γενέσθαι πρὸς ἀρετὴν ἢ βελτίονι Πυθαγόρου βαρβάρῳ τινὶ τὴν τοῦ βασιλέως ἀποδοῦναι <δέον>² παίδευσιν· οἱ δὲ Πυθαγόραν μὲν ὁψὲ γενέσθαι τῶν Νομᾷ χρόνων ὁμοῦ τι πέντε γενεαῖς ἀπολειπόμενον [. . .].

¹ δυνατὸν <ὄντα> Flacelière² <δέον> Flacelière**b** 8.4–7

ἔστι δ' ὅτε καὶ φόβους τινὰς ἀπαγγέλλων παρὰ τοῦ θεοῦ καὶ φάσματα δαιμόνων ἀλλόκοτα καὶ φωνὰς οὐκ εὐμενεῖς, ἐδούλου καὶ ταπεινὴν ἐποίει τὴν διάνοιαν αὐτῶν ὑπὸ δεισιδαιμονίας. ἐξ ὧν καὶ μάλιστα λόγον ἔσχεν ἡ σοφία καὶ ἡ παίδευσις τοῦ ἀνδρός, ὡς Πυθαγόρα συγγεγονότος. μέγα γὰρ ἦν μέρος, ὡς ἐκείνῳ

R40 (≠ DK) Livy, *Roman History*

[8] Valerius Antias adds that they [scil. the seven Greek books of philosophy discovered in the tomb of Numa in 181 BC] were Pythagorean, providing credibility by a plausible fiction to the widespread opinion according to which Numa is believed to have been a student of Pythagoras [. . .]. [14] The books were burned in the Comitium in the sight of the people [. . .].

R41 (≠ DK) Plutarch, *Numa*

a

It is reported that Numa associated with Pythagoras; but some people think that Numa did not partake in Greek education at all (either because he was able by nature to attain virtue on his own or because the king's education <had to be> entrusted to a non-Greek greater than Pythagoras), others that Pythagoras was born later, by a difference of five generations from the time of Numa [. . .].

b

Sometimes he [i.e. Numa] announced terrifying events sent by god, prodigious apparitions of demonic beings and threatening voices, and in this way he enslaved them [i.e. the people] and used fear of the gods to humble their thought. It is above all this that gave rise to the story that his wisdom and education were due to his associating with Pythagoras: for intimacy and familiarity with divinity were

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τῆς φιλοσοφίας, καὶ τούτῳ τῆς πολιτείας ἡ περὶ τὸ
θεῖον ἀγχιστεία καὶ διατριβή. λέγεται δὲ καὶ τὸν ἔξω-
θεν ὄγκον καὶ σχηματισμὸν ἀπὸ τῆς αὐτῆς Πυθα-
γόρα διανοίας περιβαλέσθαι.

*A Renewal of Pythagoreanism in the
1st Century BC? Nigidius Figulus (R42)*

R42 (≠DK) Cic. *Tim.* 1.1–2

fuit enim vir ille cum ceteris artibus, quae quidem dignae
libero essent, ornatus omnibus, tum acer investigator et
diligens earum rerum, quae a natura involutae videntur;
denique sic iudico, post illos nobiles Pythagoreos, quorum
disciplina extincta est quodam modo, cum aliquot saecula
in Italia Siciliaque viguisset, hunc extitisse, qui illam reno-
varet.

The Vanity of Archytas' Science (Horace)

See **ARCHY. P22**

*Aspects of Pythagoreanism at Rome: Cosmology,
Way of Life, and Vegetarianism (R43–R44)*

R43 (≠ DK) Ovid. *Met.* 15.60–74

60 vir fuit hic ortu Samius, sed fugerat una
et Samon et dominos odioque tyrannidis exul

PYTHAGOREAN RECEPTION

a large part of the latter's philosophy, as of the former's politics. And it is reported that he cloaked himself in an external solemnity and bearing with the same intention as Pythagoras.

A Renewal of Pythagoreanism in the 1st Century BC? Nigidius Figulus (R42)

R42 (≠ DK) Cicero, *Timaetus*

That man [i.e. P. Nigidius, whom Cicero attacks in various passages of his *Academics*] was not only embellished by all the other arts worthy of a free man but was also a keen and zealous explorer of those things that seem to have been concealed by nature. In short I consider that, after those illustrious Pythagoreans whose school was extinguished in some way after it had flourished for several centuries in Italy and Sicily, this man arose to renew it.

The Vanity of Archytas' Science (Horace)

See **ARCHY. P22**

Aspects of Pythagoreanism at Rome: Cosmology, Way of Life, and Vegetarianism (R43–R44)

R43 (≠ DK) Ovid, *Metamorphoses*

Here [i.e. at Croton] there was a man who came from
Samos but had fled

Both Samos and its rulers, and who because of his
hatred for tyranny was a voluntary

EARLY GREEK PHILOSOPHY IV

sponte erat, isque licet caeli regione remotos
mente deos adiit et quae natura negabat
visibus humanis, oculis ea pectoris hausit.

- 65 cumque animo et vigili perspexerat omnia cura,
in medium discenda dabat coetusque silentum
dictaque mirantum magni primordia mundi
et rerum causas et quid natura docebat,
quid deus, unde nives, quae fulminis esset origo,
70 Iuppiter an venti discussa nube tonarent,
quid quateret terras, qua sidera lege mearent,
et quodcumque latet. primusque animalia mensis
arguit imponi, primus quoque talibus ora
docta quidem soluit, sed non et credita, verbis:
[. . .]

62 remotos B^vFG : remotus $UB^{c?}P$

R44 (\neq DK) Sen. *Epist.* 108.17–19

[17] quoniam coepi tibi exponere, quanto maiore impetu
ad philosophiam iuvenis accesserim quam senex pergam,

PYTHAGOREAN RECEPTION

Exile; and to the gods, remote though they were in
their heavenly domain,
He traveled by his mind, and what nature denied
To human sight, this he drank in with the eyes of the
mind,
And when he had examined everything with his spirit
and wakeful zeal [cf. **EMP. D38**],
He made them learn it publicly, and he taught to the
assemblies of silent
Admirers of his sayings the origins of the great world,
And the causes of things, and what nature is,
What god is, what the snows come from, what the
origin of lightning is,
Whether it is Jupiter that thunders or the winds from
a shattered cloud,
What causes earthquakes, what law regulates the
motion of the stars—
And everything that is hidden; and he was the first to
denounce serving animals for meals,
And the first too to unlock his mouth, learned but not
believed, with the following words:
[. . .]¹

¹ The approximately four hundred verses that follow put into Pythagoras' mouth a long eclectic doctrinal presentation whose purpose is to provide both a justification for vegetarianism and a philosophical foundation for metamorphoses.

R44 (≠ DK) Seneca, *Letters to Lucilius*

[17] Since I have begun to explain to you with how much more eagerness I approached philosophy as a young man than I continue with it as an old one, I shall not be ashamed

non pudebit fateri quem mihi amorem Pythagoras iniecerit. Sotion dicebat quare ille animalibus abstinuisset, quare postea Sextius. dissimilis utrique causa erat, sed utrique magnifica. [18] hic homini satis alimentorum citra sanguinem esse credebatur et crudelitatis consuetudinem fieri ubi in voluptatem esset adducta laceratio. [. . .] [19] at Pythagoras omnium inter omnia cognitionem esse dicebat et animorum commercium in alias atque alias formas transeuntium. nulla, si illi credas, anima interit, ne cessat quidem nisi tempore exiguo, dum in aliud corpus transfunditur. videbimus per quas temporum vices et quando pererratis pluribus domiciliis in hominem revertatur: interim sceleris hominibus ac parricidii metum fecit, cum possent¹ in parentis animam inscii incurrere et ferro morsuve violare, si in quo² cognatus aliqui spiritus hospitaretur.

¹ possint mss., corr. Buecheler

² quo <corpore> Axelson

Pseudo-Pythagorean Literature (R45–R66)

Examples of Writings Attributed to

Pythagoras (R45–R46)

The Three Treatises (R45)

R45 Diog. Laert.

a (< 14.19) 8.6–7

γέγραπται δὲ τῷ Πυθαγόρᾳ συγγράμματα τρία, Παι-

to confess to you what love Pythagoras inspired in me. Sotion used to say why Pythagoras abstained from eating animals, and why Sextius did so later. The reason was different in each case, but in each case it was noble. [18] The latter believed that man had enough kinds of food without needing blood and that a habit of cruelty is produced whenever butchery is performed for the sake of pleasure. [. . .] [19] But Pythagoras stated that there is a consanguinity of all things with one another and an exchange of souls that transmigrate from one form into another. If you believe him, no soul perishes or even stops, except for a brief time, while it is being transferred into another body. We shall see after what periods of time and at what time it returns to man after it has wandered through many domiciles; but in the meantime, he made men afraid of crimes and parricide, given that they might encounter a parent's soul without knowing it and commit violence against it with a knife or with their teeth, if there were any relative's spirit lodging there [cf. **EMP. D29**].

Pseudo-Pythagorean Literature (R45–R66)¹
Examples of Writings Attributed to
Pythagoras (R45–R46)
The Three Treatises (R45)

¹ Pseudo-Pythagorean literature forms a very large corpus (see the collections of H. Thesleff and K. S. Guthrie indicated in the introduction to this chapter); here it is merely evoked.

R45 Diogenes Laertius

a (< 14.19)

Pythagoras wrote three treatises, on education, on politics,

δευτικόν, Πολιτικόν, Φυσικόν· τὸ δὲ¹ φερόμενον ὡς Πυθαγόρου Λύσιδός ἐστι τοῦ Ταραντίνου Πυθαγορικοῦ.

¹ δὲ <τέταρτον> Nauck

b (< 14.19) 8.6

οὕτω δ' εἶπεν, ἐπειδήπερ ἐναρχόμενος ὁ Πυθαγόρας τοῦ Φυσικοῦ συγγράμματος λέγει ὧδε· “οὐ μὰ τὸν αἶρα, τὸν ἀναπνέω, οὐ μὰ τὸ ὕδωρ, τὸ πίνω, οὐ κοτ' οἶσω¹ ψόγον περὶ τοῦ λόγου τοῦδε.”

¹ οὐ κατοίσω mss., corr. Diels

c (≠ DK) 8.9–10

ἐν δὲ τοῖς τρισὶ συγγράμμασι τοῖς προειρημένοις φέρεται Πυθαγόρου τάδε καθολικῶς. οὐκ ἔῃ εὔχεσθαι ὑπὲρ αὐτῶν διὰ τὸ μὴ εἰδέναι τὸ συμφέρον. τὴν μέθην ἐν ἀνθ' ἑνὸς ‘βλάβην’ καλεῖ καὶ πλησμονὴν πᾶσαν ἀποδοκιμάζει, λέγων μὴ παραβαίνειν μήτε τῶν ποτῶν¹ μήτε τῶν σιτίων μηδένα τὴν συμμετρίαν. καὶ περὶ ἀφροδισίων δέ φησιν οὕτως· “ἀφροδίσια χειμῶνος ποιέεσθαι, μὴ θέρεος· φθινοπώρου δὲ καὶ ἡρος κουφότερα, βαρέα δὲ πᾶσαν ὥρην καὶ ἐς ὑγιείην οὐκ ἀγαθά.” [. . .] [10] διαιρεῖται δὲ καὶ τὸν τοῦ ἀνθρώπου βίον οὕτως· “παῖς εἴκοσι ἔτεα, νεηνίσκος εἴκοσι, νεηνίης εἴκοσι, γέρων εἴκοσι. αἱ δὲ ἡλικίαι πρὸς τὰς ὥρας ὧδε σύμμετροι· παῖς ἔαρ, νεηνίσκος θέρος, νεηνίης φθινόπωρον, γέρων χειμῶν.”

and on nature. But the one that circulates under the name of Pythagoras is in fact the work of Lysis of Tarentum, a Pythagorean [. . . cf. **PYTH. b T36**].

b (< 14.19)

He [i.e. Heraclitus] says this [= **HER. D26**], because Pythagoras says at the beginning of his treatise on nature, “No, by the air I breathe, no, by the water I drink, never will I receive blame for this discourse.”

c (≠ DK)

In the three treatises mentioned above, what is transmitted of Pythagoras in general is the following: he does not permit people to pray for themselves because they do not know what is beneficial; he calls drunkenness ‘damage,’ substituting the one word for the other, and he condemns all satiety, saying that no one should transgress proportion either in drink or in food. And with regard to sexual relations he says, “One must have sexual relations in the winter, not in the summer; in the fall and spring they are easier, but they are grievous in every season and not good for health.” [. . .] [10] And the life of man is divided as follows: “twenty years a child, twenty years an adolescent, twenty years a young man, twenty years an old man; and the ages of life have the following proportion with the seasons: child and spring, adolescent and summer, young man and autumn, old man and winter.”

¹ *πρόνων* mss. corr. Casaubon (ex Iambl. VP 244)

d (≠ DK) 8.14

ἀλλὰ καὶ αὐτὸς ἐν τῇ γραφῇ φησι δι' ἐκκαίδεκα¹ καὶ
 διηκοσίων ἐτέων ἐξ αἰδεω παραγεγενῆσθαι ἐς ἀνθρώ-
 πους.

¹ ἐκκαίδεκα Rohde e Ps.-Iambl. *Theol.* 53.6 (σις'): ἐπτὰ mss.

The "Sacred Discourse" in Doric Prose (R46)

R46 (p. 164 Thesleff)

a Iambl. VP 146

οὐκέτι δὴ οὖν ἀμφίβολον γέγονε τὸ τὰς ἀφορμὰς
 παρὰ Ὀρφέως λαβόντα Πυθαγόραν συντάξαι τὸν
 περὶ θεῶν λόγον, ὃν καὶ ἱερὸν διὰ τοῦτο ἐπέγραψεν
 [. . .] εἴτε ὄντως τοῦ ἀνδρός, ὥς οἱ πλείστοι λέγουσι,
 σύγγραμμά ἐστιν, εἴτε Τηλαύγους [. . .]. λέγει γάρ·
 “<λόγος>¹ ὃδε περὶ θεῶν Πυθαγόρα τῷ Μνημάρχω,
 τὸν ἐξέμαθον ὀργιασθεὶς ἐν Λιβήθροις τοῖς Θρακίοις,
 Ἀγλαοφάμω τελεστᾶ² μεταδόντος, ὥς ἄρα Ὀρφεὺς ὁ
 Καλλιόπας κατὰ τὸ Πάγγαιον ὄρος ὑπὸ τᾶς ματρὸς
 πινυσθεὶς ἔφα, τὰν ἀριθμῶ οὐσίαν αἰδίου ἔμμεν³ ἀρ-
 χὰν προμαθεστάταν τῷ παντὸς ὥρανῳ καὶ γᾶς καὶ
 τᾶς μεταξὺ φύσιος, ἔτι δὲ καὶ θείων⁴ καὶ θεῶν καὶ
 δαιμόνων διαμονᾶς ρίζαν.”

¹ <λόγος> Lobeck, post Μνημάρχω Holstenius ² τε-
 λεύτα mss., corr. Schneider e Proclo *In Tim.* 3.168.9–14: τελετὰς
 Lobeck ³ εἶναι μὲν mss. corr. Vahlen ⁴ θείων <ἀν-
 θρώπων> Deubner

d (≠ DK)

And he himself says in his text that he returned to mankind from Hades after 216 (?) years.

The “Sacred Discourse” in Doric Prose (R46)

R46 (≠ DK)

a Iamblichus, *Life of Pythagoras*

So it can no longer be doubted that it was by taking his starting point from Orpheus that Pythagoras composed his discourse about the gods, which for this reason he entitled ‘sacred’ [. . .], whether the treatise was really by that man, as most people say, or by Telauges [. . .]. For he says: “This <discourse> about the gods is by Pythagoras son of Mne-marchus, and I learned it when I was initiated in Leibethra in Thrace, with Aglaophamus performing the initiatory ritual, namely that Orpheus, son of Calliope, whom his mother had taught on Mount Pangaeus, said that the essence of number is the eternal and most providential principle of all the heavens, the earth, and the nature in between, and furthermore that it is the root of the permanency of divine things, gods, and demons.”

b Syr. *In Met.*, p. 123.1–6

πὼς δ' ἂν αὐτὸς μὲν Πυθαγόρας ἐν τῷ Ἱερῷ λόγῳ
 διαρρήδη μορφῶν καὶ ἰδεῶν κράντορα τὸν ἀριθμὸν
 ἔλεγεν εἶναι, καὶ θεῶν <καὶ>¹ δαιμόνων αἴτιον καὶ τῷ
 πρεσβίστῳ καὶ κρατιστεύοντι τεχνίτῃ θεῷ κανόνα καὶ
 λόγον τεχνικόν, “νοῦν τε καὶ στάθμαν ἀκλινεστάταν
 τὸν ἀριθμὸν ὑπέιμεν συστάσιός τε καὶ γενέσιος τῶν
 πάντων”;

¹ <καὶ> Kroll

*Examples of Writings Attributed to
 Philolaus (R47–R51)
 A Late Testimonium on the Existence of
 Numerous Writings of Philolaus (R47)*

R47 (< 44 B22) Claud. Mam. *Stat. an.*

a 2.3, p. 105.7–20

[. . . = **PYTH. c D3**] in quibus vel potissimum floruisse
 Philolaum reperio Tarentinum, qui multis voluminibus
 de intelligendis rebus et qui quaeque significant oppido
 obscure dissertans, priusque de animae substantia decer-
 nat, de mensuris ponderibus et numeris iuxta geometricam
 musicam atque arithmetica mirifice disputat per haec
 omne universum extitisse confirmans [. . .].

b Syrianus, *Commentary on Aristotle's Metaphysics*

How [scil. if the Pythagoreans had spoken only of perceptible numbers] could Pythagoras himself have explicitly said in his *Sacred Discourse* that number is the master (*krantôr*) of the forms and ideas, and the cause of the gods <and> demons, the rule and the technical reason for the most ancient and powerful craftsman god, that "number is the intellect (*nous*) and most unswerving plumb line of the organization and birth of all things"?

*Examples of Writings Attributed to
Philolaus (R47–R51)*

*A Late Testimonium on the Existence of
Numerous Writings of Philolaus (R47)*

R47 (< 44 B22) Claudianus Mamertus, *On the State of the Soul*

a

[. . .] Among these [scil. those from among whom Pythagoras' opinion must be sought, since he himself wrote nothing] I find that the most illustrious was Philolaus of Tarentum, who, writing very obscurely in numerous volumes about the understanding of things and what each one signifies, discusses marvelously, before he defines the substance of the soul, about measures, weights, and numbers, together with geometry, music, and arithmetic, confirming that the whole universe has come about thanks to these [. . .].

b 2.7, p. 120.12–20

nunc ad Philolaum redeo [. . .] qui in tertio voluminum, quae *περὶ ῥυθμῶν καὶ μέτρων*¹ praenotat, de anima sic loquitur: “anima inditur corpori per numerum et immortalem eandemque incorporalem convenientiam.” item post alia: “diligitur corpus ab anima, quia sine eo non potest uti sensibus, a quo postquam morte deducta est, agit in mundo incorporalem vitam.”

¹ *περὶ . . . μέτρων* rest. edd. e lectionibus lingua Latina scriptis discrepantibus

*Two Examples of Pseudepigraphic Texts
Constructed on the Basis of Philolaus’
Theory of Principles (R48–R49)*

R48 (> 44 B11) Stob. 1 *Proem. cor.* 3

Φιλολάου: θεωρὲν δεῖ τὰ ἔργα καὶ τὰν ἐσσίαν τῷ ἀριθμῷ¹ καττὰν δύναμιν ἃ τις ἐντὶ ἐν τῇ δεκάδι. μεγάλα γὰρ καὶ παντελὴς καὶ παντοεργὸς καὶ θείω καὶ ὠρανίῳ βίῳ καὶ ἀνθρωπίνῳ ἀρχὰ καὶ ἀγεμῶν κοινωνοῦσα < . . . >² δύναμις ἃ³ τῆς δεκάδος. ἄνευ δὲ ταύτας πάντ’ ἀπειρα⁴ καὶ ἄδηλα καὶ ἀφανῆ. κανονικὰ⁵ γὰρ ἃ φύσις ἃ τῷ ἀριθμῷ καὶ ἀγεμονικὰ καὶ διδασκαλικά τῷ ἀπορουμένῳ παντὸς καὶ ἀγνοουμένῳ παντί. οὐ γὰρ

¹ τῶν ἀριθμῶν ms., corr. Boeckh ² lac. 12 litt. ms.: <κοινῶς ἐοῦσα φαίνεται> Heeren, alii alia

b

Now I come back to Philolaus [. . .], who in the third volume of the work entitled *On Rhythms and Measures*, speaks about the human soul as follows: “The soul is introduced into the body by number and by a harmony that is immortal and hence also incorporeal.” And later: “The body is loved by the soul, because without the body the soul cannot make use of the senses. And later when the soul has been removed from the body by death, it enjoys an incorporeal life in the world.”

*Two Examples of Pseudepigraphic Texts
Constructed on the Basis of Philolaus’
Theory of Principles (R48–R49)*

R48 (> 44 B11) Stobaeus, *Anthology*

From Philolaus: “It is necessary to observe the operations and the essence of number according to the power that is present in the decad. For it is great, perfect, all-accomplishing, the principle and director of divine and heavenly life and of human as well, sharing < . . . > the power of the decad. Without this, all things are unlimited, unclear, and uncertain. For the nature of number is to measure, direct, and teach all that causes difficulty and is not known by anyone. For things would not be clear to

³ á Heeren: καὶ ms. ⁴ ἄπορα Iacobs ⁵ γνωμικὰ
ms., cor. Meineke: νομικὰ D’Orville, γνωμονικὰ Iacobs

ἡς⁶ δῆλον οὐδενὶ οὐδὲν τῶν πραγμάτων, οὔτε αὐτῶν⁷
 ποθ' αὐτά, οὔτε ἄλλω ποτ' ἄλλο, αἰ μὴ ἡς⁸ ἀριθμὸς
 καὶ ἅ τούτω⁹ ἑσσία. νῦν δὲ οὗτος καττὰν ψυχὰν ἁρ-
 μόσδων αἰσθήσι πάντα γνωστὰ καὶ ποτάγορα ἀλλά-
 λους κατὰ γνώμονος φύσιν ἀπεργάζεται, σωματῶν¹⁰
 καὶ σχίζων τὼς λόγως χωρὶς ἐκάστως τῶν πραγμά-
 των, τῶν τε ἀπείρων καὶ τῶν περαινόντων. ἴδοις δέ
 κα¹¹ οὐ μόνον ἐν τοῖς δαιμονίοις καὶ θείοις πράγμασι
 τὰν τῷ ἀριθμῷ φύσιν καὶ τὰν δύναμιν ἰσχύουσιν,
 ἀλλὰ καὶ ἐν τοῖς ἀνθρωπικοῖς ἔργοις καὶ λόγοις πᾶσι
 παντᾶ καὶ καττὰς δαμιουργίας τὰς τεχνικὰς πάσας
 καὶ καττὰν μουσικάν. ψεῦδος δὲ οὐδὲν δέχεται ἅ¹² τῷ
 ἀριθμῷ φύσις, οὐδὲ ἁρμονία, οὐδὲ¹³ γὰρ οἰκείον αὐ-
 τοῖς ἐντι. τᾶς τῷ ἀπείρῳ καὶ ἀνοάτῳ καὶ ἀλόγῳ φύ-
 σιος τὸ ψεῦδος καὶ ὁ φθόνος ἐντί. ψεῦδος δὲ οὐδαμῶς
 ἐς ἀριθμὸν ἐμπίπτει,¹⁴ πολέμιον γὰρ καὶ ἐχθρὸν τῇ
 φύσι τὸ ψεῦδος, ἅ δ' ἀλάθεια οἰκείον καὶ σύμφυτον
 τῇ τῷ ἀριθμῷ γενεᾷ. καὶ τὰ ἐν τῇ σφαίρᾳ σώματα
 πέντε ἐντί. τὰ ἐν τῇ σφαίρᾳ, πῦρ, ὕδωρ καὶ γᾶ καὶ
 ἀήρ, καὶ ὁ τᾶς σφαίρας ὁλκὰς πέμπτον.

⁶ εἰς ms., corr. Koen: ἐντι Heeren ⁷ αὐτοῖς ms., corr. Heeren
⁸ εἰς ms., corr. Koen ⁹ τούτοις ms., corr. Heeren
¹⁰ σωματῶν ms., corr. Boeckh ¹¹ δὲ καὶ ms., corr. Meineke
¹² αὖ ms., corr. Iacobs ¹³ οὐ ms., corr. Badham
¹⁴ ἐπιπνεί ms., corr. Heeren

R49 (< F8a Huffmann) Syr. *In Met.*, pp. 165.33–166.5

ὅλως δὲ οὐδὲ ἀπὸ τῶν ὥσανεὶ ἀντικειμένων οἱ ἄνδρες

anyone, with regard neither to themselves nor to one another, if number and its essence did not exist [cf. **PHILOL. D7**]. But as it is, by producing in the soul accord with perception, this [scil. number] makes all things knowable and adapted to each other according to the nature of the gnomon, composing and splitting the ratios of things, each separately, both those that are unlimited and those that limit [cf. **PHILOL. D2, D3**]. One can see the nature of number and its mighty power not only in the demonic realm and in that of the gods, but also in all human actions and discourses everywhere, in all the arts of craftsmanship and in music. The nature neither of number nor of harmony admits any deception, for it is not akin to them; but deception and envy belong to the nature of the unlimited, unknowing, and irrational, and deception does not fall in any way upon number. For deception is opposed and inimical to nature, while truth is akin and innate to the race of number. And the bodies in the sphere are five in number: the ones in the sphere are fire, water, earth, and air, and the vessel of the sphere is the fifth.”

R49 (\neq DK) Syrianus, *Commentary on Aristotle's Metaphysics*

In general, these men [scil. the Pythagoreans] did not begin either from supposed contraries [scil. as Aristotle

ἤρχοντο, ἀλλὰ καὶ τῶν δύο συστοιχιῶν τὸ ἐπέκεινα ἤδεσαν, ὡς μαρτυρεῖ Φιλόλαος τὸν θεὸν λέγων πέρας καὶ ἀπειρίαν ὑποστήσαι, διὰ μὲν τοῦ πέρατος τὴν τῷ ἐνὶ συγγενεστέραν ἐνδεικνύμενος πᾶσαν συστοιχίαν, διὰ δὲ τῆς ἀπειρίας τὴν ταύτης ὑφειμένην, καὶ ἔτι πρὸ τῶν δύο ἀρχῶν τὴν ἐνιαίαν αἰτίαν καὶ πάντων ἐξηρημένην προέταπτον, ἣν Ἀρχαίνετος μὲν αἰτίαν πρὸ αἰτίας εἶναί φησι, Φιλόλαος δὲ τῶν πάντων ἀρχὰν εἶναι δυσχυρίζεται.

Philolaus as the Source of Plato's Timaeus (R50)

R50 (cf. ad 44 A26) Procl. *In Tim.* 3.198a, vol. 2, p. 190.7–10

δέδεικται μὲν οὖν ἐκ τῶν Φιλολάου τὸ πλῆθος τῶν παρὰ τῷ Τιμαίῳ γραφέντων ὄρων, τοῖς δὲ Πλάτωνος τὸ διάγραμμα προβαίνει καὶ ἄνευ τοῦ λόγου τῆς ἀποτομῆς.

An Aristotelian Philolaus (R51)

R51 (< 44 B21) Stob. 1.20.2

Φιλολάου Πυθαγορείου¹ ἐκ τοῦ Περὶ ψυχᾶς

¹ Πυθαγορείου post ψυχῆς mss., transp. Canter

implies at *Metaph.* N1 1089a29–36], but they knew what is beyond the two series, as Philolaus bears witness when he says that god has established the limit and the unlimited, indicating by the limit the whole series that is more akin to the One, and by the unlimited what is inferior to this, and they placed even before the two principles the unitary cause that transcends all things [cf. **R67**], of which Archænetus says that it is the cause before the cause and Philolaus affirms that it is the principle of all things.

Philolaus as the Source of Plato's Timaeus (R50)

R50 (cf. ad 44 A26) Proclus, *Commentary on Plato's Timaeus*

Thus it has been demonstrated that most of the definitions given in the *Timaeus* derive from the writings of Philolaus [cf. **PHILOL. P8**], but in Plato the [scil. musical] scale proceeds even without the ratio of the *apotomê*.¹

¹ The *apotomê* is the interval resulting from the subtraction of the irreducible remainder (*leimma*) from a tone: $9/8 - 256/243 = 2.187/2.048$. Ps.-Timaeus of Locri used it to complete the thirty-four terms of the musical scale that serves as the basis for the construction of the soul of the world in Plato's *Timaeus* by adding two further ones, an addition that Proclus refuses.

An Aristotelian Philolaus (R51)

R51 (< 44 B21) Stobaeus, *Anthology*

From Philolaus the Pythagorean, extract from his *On the Soul*.

Φιλόλαος· ἄφθαρτον τὸν κόσμον εἶναι. λέγει
 γοῦν οὕτως ἐν τῷ Περὶ ψυχᾶς· “παρὸ καὶ ἄφθαρ-
 τος καὶ ἀκαταπόνατος διαμένει τὸν ἄπειρον
 αἰῶνα· οὔτε γὰρ ἔντοσθεν ἄλλα τις αἰτία δυνα-
 μικωτέρα αὐτᾶς εὐρεθήσεται οὔτ’ ἔκτοσθεν,
 φθεῖραι αὐτὸν δυναμένα.² ἀλλ’ ἦς³ ὅδε ὁ κόσμος
 ἐξ αἰῶνος καὶ ἐς⁴ αἰῶνα διαμένει,⁵ εἰς ὑπὸ ἐνὸς
 τῷ συγγενέος⁶ καὶ κρατίστῳ καὶ ἀνυπερθέτῳ
 κυβερνώμενος. ἔχει δὲ καὶ τὰν ἀρχὰν τᾶς κι-
 νάσιός τε καὶ μεταβολᾶς ὁ κόσμος εἰς ἑὸν καὶ
 συνεχῆς καὶ φύσι διαπνεόμενος καὶ περιαγόμε-
 νος⁷ ἐξ ἀρχᾶς αἰδίδω.⁸ καὶ τὸ μὲν ἀμετάβλατον
 αὐτῷ, τὸ δὲ μεταβάλλον ἐντί· καὶ τὸ μὲν ἀμετά-
 βολον ἀπὸ τᾶς τὸ ὅλον περιεχοίσας ψυχᾶς
 μέχρι <τᾶς>⁹ σελάνας περαιούται, τὸ δὲ μετα-
 βάλλον ἀπὸ τᾶς σελάνας μέχρι τᾶς γᾶς [. . .].”

² δυναμένου mss., corr. Canter ³ ἦν mss., corr.
 Wachsmuth ⁴ εἰς mss., corr. Wachsmuth ⁵ διαμένων
 F, διαμένειν P: corr. Heeren ⁶ συγγενέω mss., corr.
 Wachsmuth ⁷ περιαγεόμενος mss., corr. Canter ⁸ ἀρχι-
 δίου mss., corr. Rose ⁹ <τᾶς> Meineke

*Examples of Writings Attributed to
 Archytas (R52–R53)*

R52 (cf. pp. 21–32 Thesleff) *Simpl. In Cat.*, p. 2.15–25

Ἀρχύτου γὰρ τοῦ Πυθαγορικοῦ καὶ πρὸ Ἀριστοτέ-
 λους τὴν εἰς δέκα τῶν πρώτων γενῶν ποιησαμένου

PYTHAGOREAN RECEPTION

Philolaus: the world is indestructible. For he speaks as follows in his *On the Soul*: "That is why, indestructible and inexhaustible, it persists for infinite eternity. For no other cause more powerful than this will be able to be found, neither within it nor outside it, that would be able to destroy it; but this world has existed since eternity and will persist for eternity, one and governed by the One that is akin, mightiest, and unsurpassed. But the world, which is one, continuous, traversed by the breath of nature, and eternally turned in a circle from the beginning, also possesses the principle of movement and change. And one part of it is unchanging while the other part changes; the unchanging part extends from the soul that envelops the universe down to the moon, the changing part from the moon down to the earth [. . .]."

Examples of Writings Attributed to Archytas (R52–R53)¹

¹ **R52** and **R53** are each followed by a citation from Ps.-Archytas derived from Aristotle's *Categories*.

R52 (\neq DK) Simplicius, *Commentary on Aristotle's Categories*

For Archytas the Pythagorean having, even before Aristotle, performed the division into ten of the first genera,

διαίρεσιν ἐν τῷ βιβλίῳ ὃ Περὶ τοῦ παντὸς ἐκείνος ἐπέγραψε [. . .] αὐτὸς ἐν τοῖς προσήκουσι τόποις τὰ τοῦ Ἀρχύτου παράγων [. . .] καὶ τὴν συμφωνίαν τὴν πρὸς αὐτὰ τοῦ Ἀριστοτέλους ἐπέδειξε [. . .] διότι φαίνεται πανταχοῦ τῷ Ἀρχύτῃ κατακολουθεῖν ὁ Ἀριστοτέλης βουλόμενος [. . .].

R53 (cf. pp. 15–19 Thesleff) *Simpl. In Cat.*, p. 382.7–9

φαίνεται δὲ καὶ τὰ περὶ ἀντικειμένων Ἀριστοτέλης ἐκ τοῦ Ἀρχυτείου βιβλίου μεταλαβὼν τοῦ Περὶ ἀντικειμένων ἐπιγεγραμμένου [. . .].

*Other Themes That Feature in the
Pseudepigraphic Writings (R54–R66)
On the Divulcation of the Pythagorean
Doctrine (R54)*

R54 (pp. 111, 114 Thesleff) *Pyth. epist.* 2 (*Lysis ad Hipparchum*), 1 et 7

Λύσις Ἰππάρχῳ.

[1] μετὰ τὸ Πυθαγόραν ἐξ ἀνθρώπων γενέσθαι οὐδέποκα διασκεδασθήσεσθαι τὸ ἄθροισμα τῶν ὁμιλητῶν ἐς τὸν ἑμαντοῦ θυμὸν ἐβαλόμαν· ἐπεὶ δὲ παρ' ἐλπίδας [. . .] ἄλλος ἄλλοσε φορεύμενοι διεσπάρημεν, ὅσιόν κα μεμῶσθαι¹ τῶν τήνου θείων καὶ σεμνῶν παραγγελμάτων, μηδὲ κοινὰ

in the book he wrote *On the Whole*,¹ he [i.e. Iamblichus] cites at the appropriate places what Archytas says [. . .] to demonstrate the agreement between Aristotle and them [. . .] since Aristotle manifestly wanted to follow Archytas everywhere [. . .].

¹ Probably a way of referring to the treatise known under the title (itself variable) *Concerning the Whole System or the Ten Categories*.

R53 (≠ DK) Simplicius, *Commentary on Aristotle's Categories*

It is manifest that Aristotle has likewise borrowed what he says about the opposites from Archytas' book entitled *On the Opposites* [. . .].

*Other Themes That Feature in the
Pseudepigraphic Writings (R54–R66)
On the Divulcation of the Pythagorean
Doctrine (R54)*

R54 (cf. 46) Lysis, *Letter to Hipparchus*

Lysis to Hipparchus

[1] It never occurred to me that after Pythagoras passed away from among human beings the throng of his disciples would ever be scattered. But since, against all expectation, we have been dispersed, each one in a different direction [. . .], it would be pious to recall his divine and noble precepts, and

¹ ὅσιον καὶ μὴ μνᾶσθαι (μεμνᾶσθαι γ) mss., corr. Rohde

ποιεῖσθαι τὰ σοφίας ἀγαθὰ τοῖς μηδ' ὄναρ τὰν
 ψυχὰν κεκαθαρμένοις. [. . .] [7] λέγοντι δὲ πολ-
 λοὶ τυ καὶ δαμοσίᾳ φιλοσοφέν, ὅπερ ἀπαξίωσε
 Πυθαγόρας, ὅς γε Δαμοῖ τῇ ἑαυτοῦ θυγατρὶ τὰ
 ὑπομνάματα παρακαταθέμενος ἐπέσκαψε μη-
 δενὶ τῶν ἐκτὸς τῆς οἰκίας παραδιδόμεν. αἱ δὲ
 δυναμένα πολλῶν χρημάτων ἀποδόσθαι τῶς
 λόγως οὐκ ἐβουλάθη, πενίαν δὲ καὶ τὰς τῷ πα-
 τρὸς ἐπισκάψιας ἐνόμιζε χρυσοῦ τιμιωτέρας
 ἦμεν. φαντὶ δὲ ὅτι καὶ Δαμῶ θνάσκουσα Βι-
 στάλα τῇ ἑαυτῆς θυγατρὶ τὰν αὐτὰν ἐπιστολὰν
 ἐπέστειλεν. ἀμὲς δὲ ἄνδρες ἐόντες καὶ Πυθα-
 γόρα φοιτηταὶ οὐ γνασίως αὐτῷ ποτιφερόμεθα,
 ἀλλὰ παραβάται τῶν ὁμολογιῶν γινόμεθα. εἰ
 μὲν ὦν μεταβάλαιο, χαρήσομαι, εἰ δὲ μή,
 τέθνακάς μοι.

On the Universe (R55–R56)

*A Pseudepigraphic Summary of Plato's Timaeus:
 Timaeus of Locri (R55)*

R55

a (cf. p. 207 ad l. 23 Thesleff) Iambl. *In Nic.*, p. 105.10–14
 et 17–22

καὶ πρὸ Πλάτωνος δὲ τὰ αὐτὰ διειλήφεσαν <οἱ>¹ Πυ-
 θαγορικοὶ περὶ αὐτῆς. Τίμαιός τ'² οὖν ὁ Λοκρὸς ἐν τῷ

¹ <οἱ> Pistelli

² δ' Wachsmuth

PYTHAGOREAN RECEPTION

not to communicate the goods of wisdom to those whose souls have not, even in a dream, been purified. [. . .] [7] But many say that you philosophize also in public—exactly what Pythagoras prohibited, he who entrusted his notes (*hupomnēmata*) to his daughter Damo but ordered her not to transmit them to anyone outside his family. And although she could have sold his discourses (*logoi*) for a lot of money, she refused to do so, but thought that poverty and her father's injunctions were more honorable than gold. And they say that when Damo was dying she sent the same letter to her daughter Bistala. But we, who are men and companions of Pythagoras, we are not acting nobly in regard to him, but we are violating the accord. If then you repent, I shall be delighted; if not, in my eyes you have died.¹

¹ For this letter, see also Iamblichus, *Life of Pythagoras* 75–78.

On the Universe (R55–R56)
A Pseudepigraphic Summary of Plato's Timaeus:
Timaeus of Locri (R55)

R55 (≠ DK)

a Iamblichus, *Commentary on Nicomachus'* Introduction to Arithmetic

And before Plato, the Pythagoreans maintained the same theses with regard to it [i.e. the geometric analogy, cf. Plato, *Timaeus* 31c–32a]. Thus Timaeus of Locri, in his

Περὶ φύσεως κόσμῳ καὶ ψυχᾶς (ἀφ' οὗπερ ἐφοδιασθέντα Πλάτωνα τὸν διὰ τοῦτο φερώννυμον Τίμαιον συντάξαι λέγουσιν) [. . .] οὕτω πῶς φησι: “τριῶν γὰρ ὦντινωνοῦν ὄρων, ὅταν καὶ τὰ διαστάματα κατὰ τὸν αὐτὸν ἐστάθῃ λόγον ποτ' ἄλλα, τότε δὴ τὸ μέσσον ῥυσμῶ δίκας ὀρήμεθα ποττὸ πρᾶτον, ὃ τι περ τὸ τρίτον ποτ' αὐτὸ καὶ πάλιν καὶ παραλλάξ.”

b (p. 205 Thesleff) Tim. Loc. *De nat. mund. et an.* 1.1

Τίμαιος ὁ Λοκρὸς τάδε ἔφα· “Δύο αἰτίας εἶμεν τῶν συμπάντων, νόον μὲν τῶν κατὰ λόγον γιγνομένων, ἀνάγκαν δὲ τῶν βίᾳ κατὰς δυνάμεις τῶν σωμάτων. τουτέων δὲ τὸ μὲν τᾶς τὰγαθῷ φύσιος εἶμεν θεόν τε ὀνυμαίνεσθαι ἀρχάν τε τῶν ἀρίστων· τὰ δ' ἐπόμενά τε καὶ συναίτια ὄντα ἐς ἀνάγκαν ἀνάγεσθαι [. . .].”

*A Pseudepigraphic Text of an Aristotelian
Tendency: Ocellus of Lucania (R56)*

R56

a (48.3) Phil. *Aetern. mund.* 12

ἔνιοι δ' οὐκ Ἀριστοτέλην τῆς δόξης εὐρετὴν λέγουσιν ἀλλὰ τῶν Πυθαγορείων τινάς. ἐγὼ δὲ καὶ Ὀκέλλου συγγραμμάτι, Λευκανοῦ γένος, ἐπιγραφομένῳ Περὶ τῆς τοῦ παντὸς φύσεως ἐνέτυχον, ἐν ᾧ ἀγέννητόν τε

book *On the Nature of the World and the Soul* (which they say that Plato followed and that it is for this reason that he wrote a work of the same title, *Timaeus*) [. . .], says the following: “For when the intervals between any three terms are set in the same ratio to the others, we see that the middle term is to the first one conforming to a rule of harmony as the third one is to this one [i.e. the middle term] and so too alternated.”

b Timaeus of Locri, *On the Nature of the World and the Soul*

Timaeus of Locri has said the following: “Of all things there exist two causes: intelligence (*nous*) for the things that happen in conformity with reason; and necessity for those that happen by force, in virtue of the powers of bodies. The former of these causes belongs to the nature of the good and is called god and the principle of the best things, while the ones that come after and are auxiliary causes are related to necessity [. . .].”

*A Pseudepigraphic Text of an Aristotelian
Tendency: Ocellus of Lucania (R56)*

R56

a (48.3) Philo of Alexandria, *On the Eternity of the World*

Some people say that it is not Aristotle who is the inventor of this opinion [scil. that the world is eternal] but instead certain Pythagoreans. As for me, I have read the work of Ocellus of Lucania entitled *On the Nature of the Universe*, in which he not only states that the world is ungenerated

καὶ ἄφθαρτον οὐκ ἀπεφαίνετο μόνον¹ ἀλλὰ καὶ δι'
ἀποδείξεων κατεσκεύαζε τὸν κόσμον εἶναι.

¹ μὲν οὖν codd., corr. Turnebus

b (p. 126 Thesleff) Ocell. Univ. nat. 2–3

[. . .] δοκεῖ γάρ μοι τὸ πᾶν ἀνώλεθρον εἶναι καὶ ἀγένη-
τον· αἰεὶ τε γὰρ ἦν καὶ ἔσται· εἰ γὰρ ἔγχρονον, οὐκ ἂν
ἔτι ἦν· οὕτως οὖν ἀνώλεθρόν τε καὶ ἀγένητον τὸ πᾶν.¹
οὔτε γὰρ εἰ γενόμενόν τις αὐτὸ δοξάζοι, εὖροιτο ἂν
<ἐξ ὅτου γένοιτο, οὔτε εἰ φθαρτόν, εὖροιτο ἂν>² εἰς ὃ
φθαρείη καὶ διαλυθείη· ἐξ ὅτου τε καὶ γέγονεν, ἐκείνο
πρῶτον τοῦ παντός ἐστιν, εἰς ὃ τε πάλιν φθαρθήσεται,
ἐκείνο ἔσχατον τοῦ παντός ἐσται [. . .].

¹ ἀγένητόν τε τὸ πᾶν καὶ ἀνώλεθρον AM (τε om. M)

² <ἐξ ὅτου . . . εὖροιτο ἂν> Harder post Rudolph qui scripsit
γεννηθείη

c (p. 135 Thesleff) Ocell. Univ. nat. 44

[. . .] καὶ γὰρ αὐτὰς τὰς δυνάμεις καὶ τὰ ὄργανα καὶ
τὰς ὀρέξεις τὰς πρὸς τὴν μῖξιν ὑπὸ τοῦ θεοῦ δεδομέ-
νας τοῖς ἀνθρώποις οὐχ ἡδονῆς ἕνεκα δεδόσθαι συμ-
βέβηκεν ἀλλὰ τῆς εἰς τὸν αἰεὶ χρόνον διαμονῆς τοῦ
γένους [. . .].

and indestructible, but also proves this by means of demonstrations.

b (≠ DK) Ocellus of Lucania, *On the Nature of the Whole*

It seems to me that the whole is indestructible and ungenerated, for it has always existed and will always exist; for if it were temporal, it would no longer exist. In this way therefore the whole is ungenerated and indestructible. For if someone maintained that it was generated at a given moment, he would not be able to find <what it was generated from, nor, if [scil. he said that it is] corruptible, would he be able to find> what it was corrupted and dissolved into: what it was born from is the first part of the whole, and inversely what it will be corrupted into will be the last part of the whole [. . .].

c (≠ DK) Ocellus of Lucania, *On the Nature of the Whole*

[. . .] For the capacities, organs, and desires with regard to sexual intercourse that were given to humans by god were not given for the sake of pleasure but for that of the persistence of the race for eternal time [. . .].

EARLY GREEK PHILOSOPHY IV

Political Theory (R57–R62)

The King (R57–R60)

R57 Ecph. Regn. in Stob.

a (cf. p. 79 Thesleff) 4.6.22

ἐπὶ δὲ γὰς ἄνθρωποι¹ ἀπωκισμένον χρῆμα καὶ πολὺ
τὰς καθαρωτέρας φύσιος ἐλαττούμενον καὶ πολλὰ τῇ
γᾶ βαρυνόμενον, ὥς ἀπὸ τῆς ματρὸς αὐτὸ² μόγισ
ἐπάρθαι <ἄν>,³ αἱ μὴ θεόμοιρός τις ἐμπνοίησις ἐλέω⁴
ζῶω συνᾶψεν αὐτὸ⁵ τῷ κρέσσονι μέρει δεικνύσα τὰν
ἱερὰν τῷ γεννάτορος πότον, ὥς ἀδύνατον ἐκείναν
θεάσασθαι [. . .].

¹ ἄνθρωπος Delatte ² αὐτῷ mss., corr. Gesner ³ <ἄν>
Meineke ⁴ ἐλέω (ἐλαίω A) mss.: αἰδίω Delatte ⁵ αὐτὸ
M: αὐτῷ (vel -ῶ) SA

b (pp. 79–80 Thesleff) 4.7.64

[. . .] ἐν δὲ τῇ γᾶ καὶ παρ' ἀμῖν¹ ἀριστοφνέστατον μὲν
ἄνθρωπος, θειότατον δ' ὁ βασιλεὺς ἐν τῇ κοινῇ φύσει
πλεονεκτῶν τῷ κρέσσονος, τὸ μὲν σκᾶνος τοῖς λοι-
ποῖς ὅμοιος, οἷα γεγονὼς ἐκ τῆς αὐτᾶς ὕλης, ὑπὸ τε-
χνίτα δ' εἰργασμένος λῶστω, ὃς ἐτεχνίτευσεν αὐτὸν
ἀρχετύπῳ χρώμενος ἑαυτῷ.

¹ ἀμῶν SM, ἡμῶν A: corr. Gaisford

PYTHAGOREAN RECEPTION

Political Theory (R57–R62)

The King (R57–R60)

R57 (≠ DK) Ecphantus, *On Kingship*, in Stobaeus, *Anthology*

a

On the earth, human beings are something that has been exiled, much worse than its purer nature, and weighed down by a large quantity of earth, so that it could have scarcely risen above its mother if a breath participating in divinity, out of pity for a living being, had not attached it to its better part, showing it the sacred countenance of its beggetter, which it was unable to contemplate [. . .].

b

[. . .] On the earth and among us, the human being possesses the best nature; but the king is what is most divine in the nature shared by all, and is ambitious for what is better; he resembles the others in his body, because he comes from the same matter; but he has been produced by the very best artist, who has fashioned him by taking himself as a model.

R58 (p. 71 Thesleff) Diotog. *Regn.* in Stob. 4.7.61

βασιλεύς κ' εἶη ὁ δικαιοτάτος, δικαιοτάτος δὲ ὁ νομιμώτατος. ἄνευ μὲν γὰρ δικαιοσύνας οὐδεὶς ἂν εἶη βασιλεύς, ἄνευ δὲ νόμῳ¹ δικαιοσύνα. τὸ μὲν γὰρ δίκαιον ἐν τῷ νόμῳ ἐντί, ὁ δὲ γε νόμος αἴτιος τῷ δικαίῳ, ὁ δὲ βασιλεύς ἦτοι νόμος ἔμψυχός ἐστι ἢ νόμιμος ἄρχων· διὰ ταῦτ' οὖν δικαιοτάτος καὶ νομιμώτατος [. . .].

¹ νόμῳ <οὐ> Delatte

R59 (p. 187 Thesleff) Sthen. *Regn.* in Stob. 4.7.63

χρὴ τὸν βασιλέα σοφὸν ἦμεν· οὕτω γὰρ ἐσσεῖται ἀντίμιμος καὶ ζαλωτὰς τῷ πράτῳ θεῷ. οὗτος γὰρ καὶ φύσει ἐστὶ καὶ πρῶτος βασιλεύς τε καὶ δυνάστας, ὁ δὲ γενέσει καὶ μιμάσει.

R60 (≠ DK) Porph. *Quaest. Hom.* ad Il. 1.340

οἱ Πυθαγόρειοι κατὰ θεῖον <καὶ> κατὰ¹ ἀνθρώπειον γένος ὅλον τρίτον ἐτίθεντο σεβάσμιον τὸν² βασιλέα ἢ σοφὸν ἄνδρα, Ὁμήρου πρῶτον μεταξὺ θεῶν τε καὶ ἀνθρώπων θέντος τὸν βασιλέα [. . .].

¹ κατὰ . . . <καὶ> κατὰ Villosion: καθὰ . . . καὶ McPhail

² τὸν secl. Janko

R58 (≠ DK) Diotogenes, *On Kingship*, in Stobaeus, *Anthology*

The most just man would be the king, and the one who complies most with the law would be the most just; for without justice, no one could be king, and without law, justice [scil. could not exist]. For what is just exists in the law and the law is the cause of what is just, and the king is either a law endowed with life or a magistrate who complies with the law. This is then why he is the most just and complies most with the law [. . .].

R59 (≠ DK) Sthenidas of Locri, *On Kingship*, in Stobaeus, *Anthology*

The king must be wise; for it is in this way that he will be an imitator and emulator of the first god. For this latter is by nature both the first king and ruler, while the other [scil. is king because he becomes one] by birth and imitation [. . .].

R60 (≠ DK) Porphyry, *Platonic Questions*

The Pythagoreans, with regard to the divine and human races, posited in general a third one worthy of veneration, the king or wise man, but Homer was the first to place the king between gods and men [. . .].

*Preambles to the Laws of Zaleucus and
Charondas (R61–R62)*

R61 (pp. 225–226 Thesleff) Cic. *Leg.* 2.14–15

[Marcus:] [. . .] quod idem etiam Zaleucum et Charondan fecisse video, cum quidem illi [. . .] rei publicae causa leges civitatibus suis scripserint;¹ quos imitatus Plato [. . .].

[Quintus:] Quid quod Zaleucum istum negat ullum fuisse Timaeus [*FrGrH* 566 F130a]?

[Marcus:] At <ait>² Theophrastus [*Frag.* 598C FHS&G] [. . .] commemorant vero ipsius cives [. . .] Locri. sed sive fuit sive non fuit, nihil ad rem: loquimur quod traditum est.

¹ scripserunt *mss.*, *corr. Rob. Étienne*

² <ait> *Müller*

R62

a (p. 226 Thesleff) Zaleucus in Stob. 4.2.19

τοὺς κατοικοῦντας τὴν πόλιν καὶ τὴν χώραν πάντας
πρῶτον πεπεῖσθαι χρὴ καὶ νομίζειν θεοὺς εἶναι ἀνα-
βλέποντας ἐς οὐρανὸν καὶ τὸν κόσμον καὶ τὴν ἐν αὐ-
τοῖς διακόσμησιν καὶ τάξιν [. . .].

b (p. 60 Thesleff) Charondas in Stob. 4.2.24

τὼς βουλευομένως¹ καὶ πράσσοντάς τι ἀπὸ θεῶν ἄρ-
χεσθαι χρὴ· τὸ γὰρ ἄριστον, ὥσπερ ἂ παροιμία φατί,
τὸν θεὸν ἡμεν αἴτιον πάντων τούτων [. . .].

PYTHAGOREAN RECEPTION

Preambles to the Laws of Zaleucus and Charondas (R61–R62)

R61 (≠ DK) Cicero, *On the Laws*

[Marcus:] [. . .] I see that Zaleucus and Charondas did the same thing [scil. praised the laws in a preamble] when they [. . .] wrote laws for their fellow citizens for the sake of their political community; and Plato imitated these [. . .]. [Quintus:] But what about the fact that Timaeus [i.e. of Taormina] denies that this Zaleucus ever existed? [Marcus:] But Theophrastus <said [scil. that he did]> [. . .]; and his fellow citizens, the Locrians, mention him [. . .]. But it does not matter whether or not he existed; I am speaking about what is reported.

R62 (≠ DK)

a Beginning of the preamble of Zaleucus, in Stobaeus, *Anthology*

First of all, all the inhabitants of the city and the country, looking at the heavens and the world, and the arrangement and order that are in them, must believe and acknowledge that the gods exist [. . .].

b Beginning of the preamble of Charondas of Catania, in Stobaeus, *Anthology*

Those who deliberate or perform some action must begin with the gods. For the best thing, as the proverb says, is that god is the cause of all these things [. . .].

¹ βουλομένως (-μένους L) mss., corr. Meineke

The Virtue of Women (R63–R66)

R63 (pp. 195–196 Thesleff) *Pyth. epist.* 5 (p. 166 Städele)

ἀκούω σε τὰ παιδία τρυφερῶς ἄγειν· ἔστι δὲ ἀγαθῆς
μητρὸς οὐχ ἢ πρὸς ἡδονὴν ἐπιμέλεια τῶν παίδων,
ἀλλ' ἢ πρὸς τὸ σῶφρον ἀγωγή [. . .].

R64 (< 17.1) *Iambl. VP* 132

[. . .] Δεινὸν¹ γὰρ τὴν Βροντίνου γυναικα, τῶν Πυθα-
γορείων ἑνός, οὖσαν σοφὴν τε καὶ περιττὴν τὴν ψυ-
χὴν, ἧς ἔστι καὶ τὸ καλὸν καὶ περίβλεπτον² ῥῆμα, τὸ
τὴν γυναικα δεῖν θύειν αὐθημερὸν ἀνισταμένην ἀπὸ
τοῦ ἑαυτῆς ἀνδρός, ὃ τινες εἰς Θεανὴ ἀναφέρουσι
[. . .].

¹ δεινωνὸν ms., corr. Scaliger

² περιβόητον Cobet

R65 (cf. p. 194.27 Thesleff) *Plut. Praec. conj.* 31 142C

ἡ Θεανὴ παρέφηγε τὴν χεῖρα περιβαλλομένη τὸ ἱμά-
τιον. εἰπόντος δέ τινος “καλὸς ὁ πῆχυς,” “ἀλλ' οὐ δη-
μόσιος” ἔφη.

R66 (p. 142 Thesleff) *Perictione Mul. harm.* in *Stob.*
4.28.19

τὴν ἀρμονίην γυναικα νώσασθαι¹ δεῖ φρονήσιός τε

¹ γυνὰ ἱκανώσασθαι mss., corr. Valekenaeer

PYTHAGOREAN RECEPTION

The Virtue of Women (R63–R66)

R63 (≠ DK) Theano, *Letter to Euboule*

I hear that you are spoiling your children. But what belongs to a good mother is not to care for her children's pleasure but to lead them to temperance [. . .].

R64 (< 17.1) Iamblichus, *Life of Pythagoras*

[. . .] Deino, a wise and extraordinary woman, the wife of Brontinus, one of the Pythagoreans, she who uttered that magnificent and admirable saying, “a woman should sacrifice the very day that she gets up from her husband's [scil. embrace],” which some people attribute to Theano [. . .].

R65 (≠ DK) Plutarch, *Conjugal Precepts*

Theano exposed her arm while she was putting on her cloak. When someone said, “Your arm is beautiful!” she said, “But it is not for the public.”

R66 (≠ DK) Perictionê,¹ *On the Harmony of Women*, in Stobaeus, *Anthology*

A woman should think that harmony is full of wisdom and

¹ Perictionê was the name of Plato's mother.

καὶ σωφροσύνης πλείην· κάρτα γὰρ ψυχὴν πεπνύσθαι δεῖ ἐς ἀρετὴν, ὥστ' ἔσται καὶ δικαίη καὶ ἀνδρική καὶ φρονέουσα καὶ αὐταρκείη καλλυνομένη² καὶ κενὴν δόξαν μισέουσα³ [. . .].

² καλοννωμένη S, καλον νωμένη M, καλλονωμένη A: corr. Tr.
³ μισγέουσα mss., corr. Tr.

*Some Neopythagorean Presentations of
 'Pythagorean' Doctrines Concerning the
 Principles (R67–R71)
 Eudorus of Alexandria (R67)*

R67 (≠ DK) Siml. *In Phys.*, p. 181.10–30

γράφει δὲ περὶ τούτων ὁ Εὐδωρος τάδε· “κατὰ τὸν ἀνωτάτω λόγον φατέον τοὺς Πυθαγορικοὺς τὸ ἐν ἀρχὴν τῶν πάντων λέγειν, κατὰ δὲ τὸν δεύτερον λόγον δύο ἀρχὰς τῶν ἀποτελουμένων εἶναι, τό τε ἐν καὶ τὴν ἐναντίαν τούτῳ φύσιν. ὑποτάσσεσθαι δὲ πάντων τῶν κατὰ ἐναντίωσιν ἐπινοουμένων τὸ μὲν ἀστείον¹ τῷ ἐνί, τὸ δὲ φαῦλον τῇ πρὸς τοῦτο ἐναντιουμένῃ φύσει. διὸ μὴδὲ εἶναι τὸ σύνολον ταύτας ἀρχὰς κατὰ τοὺς ἄνδρας. εἰ γὰρ ἢ μὲν τῶνδε ἢ δὲ τῶνδὲ ἐστὶν ἀρχή, οὐκ εἰσὶ κοιναὶ πάντων ἀρχαὶ ὥσπερ τὸ ἐν.” καὶ πάλιν “διό,” φησί, “καὶ κατ’ ἄλλον τρόπον ἀρχὴν ἔφασαν εἶναι τῶν πάντων τὸ ἐν, ὥς ἂν καὶ τῆς ὕλης καὶ τῶν ὄντων πάντων ἐξ αὐτοῦ γεγεννημένων. τοῦτο² δὲ εἶναι καὶ τὸν ὑπεράνω θεόν.” καὶ λοιπὸν ἀκριβολογούμενος

temperance. For the soul must really be inspired for virtue, in order to be just, courageous, prudent, embellished by self-sufficiency, and hating empty opinion [. . .].

*Some Neopythagorean Presentations of
'Pythagorean' Doctrines Concerning the
Principles (R67–R71)
Eudorus of Alexandria¹ (R67)*

¹ First century BC.

R67 (≠ DK) Simplicius, *Commentary on Aristotle's Physics*

Eudorus writes the following about them [i.e. the Pythagoreans]: “It should be said that according to the loftiest explanation the Pythagoreans say that the One is the principle of all things, but that according to the second explanation there are two principles of the production of things, the One and the nature that is opposed to it. All things, conceived by opposition, are arranged below: what is refined (*asteion*) under the One, what is base under the nature that is opposed to it. That is why these are not absolutely principles for these people. For if the one is the principle of some things and the other the principle of others, then they are not common principles of all things, as the One is.” And he says again, “This is why they stated in a different way also that the One is the principle of all things, since both matter and all things come from it. And it is also the transcendent (*huperanô*) god.” And then,

¹ ἀστέϊον ἀέ E

² τοῦτο F: τοῦτον DE

[. . .] “φημί τοίνυν τοὺς περὶ τὸν Πυθαγόραν τὸ μὲν ἐν πάντων ἀρχὴν ἀπολιπεῖν, κατ’ ἄλλον δὲ τρόπον δύο τὰ ἀνωτάτω στοιχεῖα παρεισάγειν. καλεῖν δὲ τὰ δύο ταῦτα στοιχεῖα πολλαῖς προσηγορίαις· τὸ μὲν γὰρ αὐτῶν ὀνομάζεσθαι τεταγμένον ὠρισμένον γνωστὸν ἄρρεν περιττὸν δεξιὸν φῶς, τὸ δὲ ἐναντίον τούτῳ ἄτακτον ἀόριστον ἄγνωστον θῆλυ ἀριστερὸν ἄρτιον σκότος, ὥστε ὡς μὲν ἀρχὴ τὸ ἓν, ὡς δὲ στοιχεῖα τὸ ἐν καὶ ἡ ἀόριστος δυάς, ἀρχαὶ ἄμφω ἐν ὄντα πάλιν. καὶ δῆλον ὅτι ἄλλο μὲν ἐστὶν ἐν ἡ ἀρχὴ τῶν πάντων, ἄλλο δὲ ἐν τῇ δυάδι ἀντικείμενον, ὃ καὶ μονάδα καλοῦσιν.”

Moderatus of Gades (R68)

R68 (≠ DK) *Simpl. In Phys.*, pp. 230.34–231.5

ταύτην δὲ περὶ τῆς ὕλης τὴν ὑπόνοιαν εἰκόασιν ἐσχηκέναι πρῶτοι μὲν τῶν Ἑλλήνων οἱ Πυθαγόρειοι, μετὰ δ’ ἐκείνους ὁ Πλάτων, ὡς καὶ Μοδέρατος ἱστορεῖ. οὗτος γὰρ κατὰ τοὺς Πυθαγορείους τὸ μὲν πρῶτον ἐν ὑπὲρ τὸ εἶναι καὶ πᾶσαν οὐσίαν ἀποφαίνεται, τὸ δὲ δεύτερον ἓν, ὅπερ ἐστὶ τὸ ὄντως ὄν καὶ νοητὸν, τὰ εἶδη φησὶν εἶναι, τὸ δὲ τρίτον, ὅπερ ἐστὶ τὸ ψυχικόν, μετέχειν τοῦ ἐνὸς καὶ τῶν εἰδῶν, τὴν δὲ ἀπὸ τούτου τελευταίαν φύσιν τὴν τῶν αἰσθητῶν οὐσαν μηδὲ μετ-

explaining precisely [. . .]: "So I state that Pythagoras' disciples admit that the One is the principle of all things, but that in a different way they introduce two highest elements. They call these two elements by many names: the first is called ordered, definite, known, male, odd, right, light; its contrary, disordered, indefinite, unknown, female, left, even, darkness, so that there is the One as first principle, and the One and the indefinite Dyad as elements, the One being in turn both principles. And it is clear that the One which is the principle of all things is different from the One which is opposed to the Dyad, which they also call 'monad.'"

*Moderatus of Gades*¹ (R68)

¹ Second century AD.

R68 (≠ DK) Simplicius, *Commentary on Aristotle's Physics*

As Moderatus too reports, it seems that the first among the Greeks to have had this conception about matter [scil. that matter is distinguished from material realities by the absence of any measurable dimension] were the Pythagoreans, and after them Plato. For he states, in conformity with the Pythagoreans, that the first One is above being and all existing substance (*ousia*), he says that that the second One, which is what really exists (*to ontôs on*) and is intelligible, is the Forms, that the third, which is what belongs to the soul (*to psukhikon*), participates in the One and the Forms, and that the last nature deriving from this, which is that of the perceptibles, does not even participate

έχειν, ἀλλὰ κατ' ἔμφασιν ἐκείνων κεκοσμηθῆσθαι, τῆς ἐν αὐτοῖς ὕλης τοῦ μὴ ὄντος πρώτως ἐν τῷ ποσῷ ὄντος οὐσης σκίασμα καὶ ἔτι μᾶλλον ὑποβεβηκυίας καὶ ἀπὸ τούτου.

Numenius (R69)

R69 (≠ DK) Calcid. *In Tim.* 295, pp. 522–24 Bakhouché (< Numen. Frag. 52 Des Places)

Numenius ex Pythagorae magisterio Stoicorum hoc de initiis dogma refellens Pythagorae dogmate, cui concinere dicit Platonicum, ait Pythagoram deum quidem singularitatis <nomine>¹ nominasse, silvam vero duitatis; quam duitatem indeterminatam quidem minime genitam, limitatam vero generatam esse dicere [. . .]. sed non nullos Pythagoreos, vim sententiae non recte assecutos, putasse dici etiam illam indeterminatam et immensam duitatem ab unica singularitate institutam, recedente a natura sua singularitate et in duitatis habitum migrante—non recte ut [. . .] ex deo silva et ex singularitate immensa et indeterminata duitas converteretur.

¹ <nomine> Wrobel

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in it, but is organized in virtue of the impression produced by them [i.e. the One and the Forms]; the matter in them is the shadow of what does not exist, which in the first place is located in quantity, but it has receded even lower from this last.

*Numenius*¹ (R69)

¹ Second century AD.

R69 (≠ DK) Calcidius, *Commentary on Plato's Timaeus*

Numenius, of the school of Pythagoras, refuting the Stoics' doctrine on the principles by means of Pythagoras' doctrine, with which he says Plato's agrees, says that Pythagoras gave to god the name 'monad' and to matter that of 'dyad'; which dyad he says is not at all generated inasmuch as it is indeterminate, but generated inasmuch as it is limited [. . .]. But some Pythagoreans, who did not understand correctly the meaning of this statement, thought that what was being said was that this indeterminate and unlimited dyad was also produced by the monad alone when the monad recedes from its nature and emigrates into the condition of the dyad—mistakenly, since [. . .] matter would come from god and the unlimited and indeterminate dyad from the monad.

See also **PHER. R18**

Longinus (R70)

R70 (\neq DK) Longin. in Porph. Vit. Plot. 20.69–75
(Longin. Frag. 4, p. 147 Patillon-Brisson)

οἱ δὲ καὶ πλήθει προβλημάτων ἃ μετεχειρίσαντο τὴν σπουδὴν τοῦ γράφειν ἀποδειξάμενοι¹ καὶ τρόπῳ θεωρίας ἰδίῳ χρησάμενοι Πλωτῖνός εἰσι καὶ Γεντιλιανὸς Ἀμέλιος· ὃς μὲν τὰς Πυθαγορείους ἀρχὰς καὶ Πλατωνικὰς ὡς ἐδόκει, πρὸς σαφεστέραν τῶν πρὸ αὐτοῦ καταστησάμενος ἐξήγησιν (οὐδὲ γὰρ οὐδὲν ἐγγύς τι τὰ Νουμηνίου καὶ Κρονίου καὶ Μοδεράτου καὶ Θρασύλλου τοῖς Πλωτίνου περὶ τῶν αὐτῶν συγγράμμασιν εἰς ἀκρίβειαν) [. . .].

¹ ἀποδεξάμενοι mss., corr. Toup

The Variety of Pythagorean Doctrines
According to a (Neopythagorean)
Report in Sextus Empiricus (R71)

R71 (\neq DK) Sext. Emp. Adv. Math. 10

a 262–63

καὶ ὅτι ταῖς ἀληθείαις αὐταί εἰσι τῶν ὅλων ἀρχαί, ποικίλως οἱ Πυθαγορικοὶ διδάσκουσιν. τῶν γὰρ ὄντων, φασί, τὰ μὲν κατὰ διαφορὰν νοεῖται, τὰ δὲ κατ' ἐναντίωσιν, τὰ δὲ πρὸς τι. κατὰ διαφορὰν μὲν οὖν εἶναι τὰ καθ' ἑαυτὰ καὶ κατ' ἰδίαν περιγραφὴν ὑποκείμενα [. . .].

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Longinus (R70)

R70 (≠ DK) Longinus, Preface to *Against Plotinus and Amelius Gentilianus*, in Porphyry, *Life of Plotinus*

Those who have demonstrated the seriousness of their writings by the number of problems they discussed and who had their own personal theoretical conception are Plotinus and Amelius Gentilianus—the former, he [i.e. Longinus] thought, gave a clearer interpretation of the Pythagorean and Platonic principles than his predecessors had done (for what Numenius, Cronius, Moderatus, and Thrasyllus say is in precision very far from Plotinus' writings on the same subjects) [. . .].

The Variety of Pythagorean Doctrines According to a (Neopythagorean) Report in Sextus Empiricus (R71)

R71 (≠ DK) Sextus Empiricus, *Against the Natural Philosophers*¹

¹ The passage from which these two extracts are taken is very lengthy (§248–84).

a

And the Pythagoreans teach in a variety of ways that in truth these are the principles of all things [scil. a version of the theory of principles analogous to the one reported by Eudorus, **R67**]. For among the things that exist, some are conceived in function of their differences, others by way of contrariety, others relatively to something. In function of their difference are [scil. conceived] those that exist by themselves and possess a characteristic that is their own [. . .].

b 281–82

τινὲς δ' ἀπὸ ἐνὸς σημείου τὸ σῶμά φασι συνίστασθαι. τουτὶ γὰρ τὸ σημεῖον ῥνὲν γραμμὴν ἀποτελεῖν, τὴν δὲ γραμμὴν ῥνείσαν ἐπίπεδον ποιεῖν, τοῦτο δὲ εἰς βάθος κινηθὲν τὸ σῶμα γεννᾶν τριχῇ διαστατόν. διαφέρει δὲ ἡ τοιαύτη τῶν Πυθαγορικῶν στάσις τῆς τῶν προτέρων. ἐκείνοι μὲν γὰρ ἐκ δυεῖν ἀρχῶν, τῆς τε μονάδος καὶ τῆς ἀόριστου δυνάδος, ἐποιοῦν τοὺς ἀριθμούς, εἴτ' ἐκ τῶν ἀριθμῶν τὰ σημεία καὶ τὰς γραμμὰς τὰ τε ἐπίπεδα σχήματα καὶ τὰ στερεά. οὗτοι δὲ ἀπὸ ἐνὸς σημείου τὰ πάντα τεκταίνουσιν.

An Example of Doxographic Syncretism (R72)

R72 (> 58B.15) Aët. 1.3.8 (Ps.-Plut.; cf. Stob.) [περὶ ἀρχῶν]

πάλιν δ' ἀπ' ἄλλης ἀρχῆς Πυθαγόρας Μνησάρχου Σάμιος ὁ πρῶτος φιλοσοφίαν τούτῳ τῷ ῥήματι προσ-αγορεύσας, ἀρχὰς τοὺς ἀριθμοὺς καὶ τὰς συμμετρίας τὰς ἐν τούτοις, ἃς καὶ ἀρμονίας καλεῖ, τὰ δ' ἐξ ἀμφοτέρων σύνθετα στοιχεῖα, καλούμενα δὲ γεωμετρικά· πάλιν δὲ τὴν μονάδα καὶ τὴν ἀόριστον δυνάδα ἐν ταῖς ἀρχαῖς. σπεύδει δ' αὐτῷ τῶν ἀρχῶν ἡ μὲν ἐπὶ τὸ ποιητικὸν αἷτιον καὶ εἰδικόν, ὅπερ ἐστὶ νοῦς ὁ¹ θεός, ἡ δ' ἐπὶ τὸ παθητικόν τε καὶ ὑλικόν, ὅπερ ἐστὶν ὁ ὁρατὸς κόσμος. εἶναι δὲ τὴν φύσιν τοῦ ἀριθμοῦ δεκάδα· μέχρι γὰρ τῶν δέκα πάντες Ἑλληνες, πάντες βάρβαροι

b

But some people say that the body comes from a single point. For the flux of this point generates the line; the flux of the line produces a surface; and the displacement of this latter in depth generates the three-dimensional body. But this position of these Pythagoreans differs from that of the earlier ones. For they [i.e. the earlier ones] produced the numbers starting from two principles, the monad and the indefinite dyad, then, starting from the numbers, the points, lines, and the plane and solid figures. But the others construct all things starting from a single point [. . .].

An Example of Doxographic Syncretism (R72)

R72 (> 58B.15) Aëtius

For his part, taking a different starting point [scil. than did the representatives of the Ionian line of descent; cf. **DOX. T20**], Pythagoras of Samos, son of Mnesarchus, the first to have called philosophy by this name, [scil. stated that] what are principles are the numbers and the proportions that exist among them, which he also calls 'harmonies,' while what is composed out of both of these are the elements, called 'geometrical'; again, that the monad and the indefinite dyad are among the principles. Of these principles, according to him, the one tends toward the efficient and formal cause, which is intellect, god, the other toward the passive and material cause, which is the perceptible world. The nature of number is the decad. For all Greeks,

¹ ὁ ΜΠ: καὶ m

ἀριθμοῦσιν, ἐφ' ἃ ἐλθόντες πάλιν ἀναποδίζουσιν² ἐπὶ τὴν μονάδα· καὶ τῶν δέκα πάλιν, φησὶν, ἡ δύναμις ἐστὶν ἐν τοῖς τέτταρσι καὶ τῇ τετράδι· τὸ δ' αἷτιον, εἴ τις ἀπὸ τῆς μονάδος ἀναποδῶν³ κατὰ πρόσθεσιν τιθείη τοὺς ἀριθμούς, ἄχρι τῶν τεσσάρων προελθὼν ἐκπληρώσει τὸν δέκα ἀριθμόν. ἐὰν δὲ ὑπερβάλῃται τὸν τῆς τετράδος, καὶ τῶν δέκα ὑπερεκπεσεῖται⁴ οἷον εἴ τις θέῃ ἐν καὶ δύο προσθείη καὶ τρία καὶ τούτοις τέσσαρα, τὸν τῶν δέκα πληρώσει⁵ ἀριθμόν· ὥστε ὁ ἀριθμὸς κατὰ μὲν μονάδα ἐν τοῖς δέκα κατὰ δὲ δύναμιν ἐν τοῖς τέσσαρσι. διὸ καὶ ἐφθέγγοντο οἱ Πυθαγόρειοι, ὡς μεγίστου ὄρκου ὄντος τῆς τετράδος,

οὐ μὰ τὸν ἀμετέρα ψυχῇ παραδόντα τετρακτύν,
παγὰν ἀενάου φύσεος ριζώματ'⁶ ἔχουσαν.

καὶ ἡ ἡμετέρα ψυχῇ, φησὶν, ἐκ τετράδος σύγκειται· εἶναι γὰρ νοῦν ἐπιστήμην δόξαν αἰσθησιν, ἐξ ᾧ πᾶσα τέχνη καὶ ἐπιστήμη καὶ αὐτοὶ λογικοὶ ἐσμεν. νοῦς μὲν οὖν ἡ μονάς ἐστίν· ὁ γὰρ νοῦς κατὰ μονάδα θεωρεῖ,⁷ οἷον πολλῶν ὄντων ἀνθρώπων οἱ μὲν ἐπὶ μέρους εἰσὶν ἀναίσθητοι ἀπερίληπτοι καὶ ἄπειροι, ἀλλ' αὐτὸ τοῦτο ἄνθρωπον ἓνα μόνον νοοῦμεν, ᾧ οὐδεὶς ἔτυχεν ὅμοιος [. . .]. καὶ ἡ δυὰς δ' ἡ ἀόριστος ἐπιστήμη, εἰκότως· πᾶσα γὰρ ἀπόδειξις καὶ πᾶσα

² ἀναποδοῦσιν mss., corr. Beck ³ ἀναποδῶν del. Mau, deest in Arab.: ἀναλαβὼν vel α' μονάδος corr. Usener: ἀναποδίζων Bern. ⁴ ὑπερεκπεσεῖται ΜΠ: ἐκπεσεῖται m

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all barbarians count up to 10 and when they have reached that they revert to the monad. And the power of 10 in turn, he says, resides in the 4 and in the tetrad. The reason for this is that if, reverting (?) from the monad, one constitutes the numbers by addition, one will complete the number 10 by proceeding up to 4. But if one goes beyond the [scil. number] of the tetrad, one will also fall beyond 10. For example, if one posits 1 and adds 2 and 3 and 4 to these, then one will complete the number 10. So that the number is in 10 by the monad [i.e. the unit], but in 4 by its power. And that is why the Pythagoreans proclaimed, thinking that the tetraktys is the greatest oath,

No, by the man who bequeathed to our soul the
tetraktys,
The source that holds the roots of ever-flowing
nature. [cf. **PYTHS. ANON. D16**]

And our soul, he says, is composed out of the tetrad. For it is from intellect, knowledge, opinion, perception, that every art and every science comes and that we ourselves are rational. Therefore the intellect is the monad; for the intellect knows in accordance with the monad; for example, there are many men: but individually they can not be perceived nor grasped and they are unlimited, but we think this very thing, a single man alone, to whom no one else is found to be similar [. . .]. And the indefinite dyad is knowledge, as is plausible: for every demonstration and

⁵ πληρώσει II: πληρώσειεν Mm: ἐκπληρώσει Diels
⁶ ῥίζωμά τ' Wytttenbach ⁷ θεωρεῖται mss., corr. Usener

πίστις ἐπιστήμης, πρὸς δὲ καὶ πᾶς συλλογισμὸς ἔκ
τινων ὁμολογουμένων τὸ ἀμφισβητούμενον συνάγει⁸
καὶ ῥαδίως ἀποδείκνυται ἕτερον· ὦν ἡ ἐπιστήμη κατὰ-
ληψίς ἐστι, διὸ εἴη ἂν δυνάς. ἡ δὲ δόξα τριὰς ἐκ κατα-
λήψεως ἐστιν, εὐλόγως, ὅτι πολλῶν ἐστιν ἡ δόξα· ἡ
δὲ τριὰς πλῆθος, ὡς “τρισμάκαρες Δαναοί.” διὰ τοῦτο
οὖν ἐγκρίνει τὴν τριάδα . . .

⁸ συνάγει ΜΠ: ἀνάγει m

*Pythagoras in The Assembly of
Philosophers (R73)*

R73 (≠ DK) *Turba Phil.*

a p. 109.10–15 Ruska

narro, quod magister meus Pitagoras Italus, sapientum
magister, vatum caput, tantum donum Dei et sapientiae
habuit, quod nemini post Hermetem datum est. discipulos
igitur eius iam multiplicatos et per omnes regiones prin-
cipes constitutos ad hanc pretiosissimam artem voluit con-
gregare, ut eorum locutio sit radix post se venturis.

b Sermo VIII, pp. 72.1–2, 73.4–11 Plessner

inquit Pitagoras: “dico Deum ante omnia fuisse, cum quo
nihil fuit, cum fuit. [. . .] et intelligite quod Deus, cum

every conviction belongs to knowledge, and furthermore every deduction brings together, on the basis of certain agreed premises, what is in question and easily demonstrates something else: this is what knowledge apprehends, and this is why it would be the dyad. Opinion is the triad deriving from apprehension, as is reasonable: for opinion belongs to multiplicity; and the triad is multitude, as in the expression 'thrice-blessed Danaans' [cf. Homer, *Od.* 5.306]. This then is why he includes the triad . . .¹

¹ The explanation of sensation as the tetrad has not been preserved.

*Pythagoras in The Assembly of
Philosophers (R73)*

R73 (≠ DK) *The Assembly of Philosophers*

a

I [scil. Arisleus, i.e. Archelaus] report that my teacher, the Italian Pythagoras, teacher of the wise, chief of the prophets, possessed so great a gift of God and of wisdom as was given to no one after Hermes [scil. Trismegistus]. Therefore he wanted to convoke in an assembly his students, who had already proliferated and had been established throughout all the regions as the leaders in this most precious art [scil. of alchemy], so that their discourses would be a foundation for posterity [cf. **ARCHY. R7**].

b

Pythagoras said: "I say that God existed before all things, and together with Him there existed nothing when He

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solus fuisset, quatuor res creavit: ignem, aera, aquam et terram, ex quibus iam creatis omnia creavit tam sublimium quam inferiorum rerum, eo quod praedestinavit, quod oportet creaturis ex radice extrahi, a qua multiplicantur et augmentantur, ut inhabitent mundum et sua in eis iudicia perficiant. ideo ante omnia quatuor creavit elementa, ex quibus postea, quae voluit, creavit, diversas sc. creaturas, quarum quasdam ex uno creavit.

PYTHAGOREAN RECEPTION

existed. [. . .] And understand that God, when He alone existed, created four things: fire, air, water, and earth, out of which, when they had already been created, He created all things, both the upper things and the lower ones, since He had predestined that it was necessary for the creatures to be drawn out of a root, from which they would multiply and be increased, so that they would inhabit the world and fulfill His judgments regarding them. And so before all things He created four elements, out of which afterward He created what He wanted, viz. the different creatures, of which He created certain ones out of one [scil. element].”